San Francisco Healthy Food Supplement Program

A Report For The San Francisco Food Security Task Force

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Executive Summary

This report explores healthy food purchasing supplement programs as one policy innovation that addresses the distinct but related concerns of nutrition, hunger, and support of local food systems. Healthy food purchasing supplement programs, which aim to increase the consumption of targeted foods that could contribute to a healthy diet, employ a variety of approaches to reach their goals. This report focuses on financial incentive programs, where additional funds are given to beneficiaries to support the consumption of healthy food. As food-insecure populations face unique financial barriers to healthy eating, healthy food purchasing supplement programs can play an important role within a broader set of comprehensive policy interventions addressing the issue of food security.

This report analyzes the practices of healthy food purchasing supplement programs in operation across the United States, in combination with program evaluation reports and academic literature, in order to explore how this type of programming could be implemented in the City of San Francisco as part of the city's commitment to ensure that that all San Franciscans are food secure and hunger-free by 2020. Within this context, the goals of a healthy food purchasing supplement program in San Francisco are (1) to increase food security in San Francisco by increasing financial resources to purchase nutritious foods, and (2) to increase the consumption of healthy foods.

San Francisco is an innovative city seeking to implement an ambitious program with a broad reach. For this reason, the analysis in this report does not rely solely on case studies of existing programs. Instead, aspects of model programs are evaluated and synthesized in novel ways to create recommendations specifically tailored to San Francisco's needs.

Summary of Healthy Food Purchasing Supplement Program Design Recommendations

The analysis presented in this report culminates in the following two comprehensive program design recommendations for San Francisco. Recommendation 1 makes use of existing infrastructure to allow a city-sponsored program to get off the ground quickly. Recommendation 2 places additional emphasis on scalability, expanding the distribution of benefits as well as the vendor network. While Recommendation 1 and Recommendation 2 are intended to be complementary, they can also be viewed as stand-alone options if budget constraints limit the feasibility of implementing both programs.

Recommendation 1: Expanded Market Match Program

Focused on ease of implementation, Recommendation 1 centers on a potential partnership between the City of San Francisco and the existing healthy food purchasing supplement program Market Match, which is currently in operation at a subset of San Francisco farmers' markets. Administered by the non-profit Ecology Center, Market Match provides CalFresh beneficiaries with an extra $5 when they spend at least $10 in CalFresh benefits at participating farmers' markets. The City of San Francisco could approach Market Match administrators to form a partnership in order to facilitate a two-fold expansion of existing programming:

(1) Expand programming to all San Francisco farmers' markets—notably, the Heart of the City Farmers' Market, which accounts for nearly 70% of all CalFresh purchases made at farmers' markets in San Francisco;[1] and

(2) Expand the match beyond CalFresh to populations receiving any form of government assistance, including WIC and SSI benefits. After a one-time registration process with proof of eligibility, participants could pay up-front at a market's central booth and receive matching tokens. Higher matching rates may be explored for non-CalFresh populations.

Recommendation 2: Widely Redeemable Fruit and Vegetable Voucher

Focused on scalability, Recommendation 2 proposes a cash-value benefit redeemable at supermarkets, grocery stores, and farmers' markets and expands eligibility to a broad set of low-income individuals. This benefit would take the form of a barcoded paper voucher redeemable for fresh fruits and vegetables in the same manner in which traditional coupons are used at grocery stores. Importantly, this voucher would provide benefits up front, without requiring beneficiaries to spend a portion of their own money first. Flexibility in terms of distribution channels and retail locations maximizes the potential for scalability:

(1) Vouchers could be distributed through both city government agencies and community-based organizations (CBO) to maximize beneficiary reach. The government agencies would provide vouchers only to recipients of a means-tested government program (e.g., WIC, SSI, SFMNP, Medi-Cal), whereas the CBOs could be permitted to distribute vouchers to whomever they chose based on their own criteria. This broad eligibility would allow greatest reach into the city's various food-insecure populations.

(2) Although this analysis recommends starting the voucher program at one or two supermarket chains with the greatest saturation across the city, the vendor network could potentially be expanded to include any retail location that stocks fresh fruits and vegetables.

Overview of Report Structure and Analysis

This report is divided into two complementary sections. Part 1 contains an overview and analysis of healthy food purchasing supplement programs based on interviews with administrators of programs in other cities, program evaluation reports, and academic literature. Key findings are analyzed within the context of unmet need in San Francisco, and the two comprehensive program design recommendations described above are covered in detail.

Part 2 expands on the overview of healthy food purchasing supplement programs presented in Part 1 to offer a comprehensive resource tool for program design and implementation. It provides in-depth analysis of the benefits, challenges, and dependencies associated with an exhaustive range of program design components, as well as case studies of model programs that showcase various design options. Part 2 concludes by highlighting insights on best practices for program implementation, operations, and evaluation.

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PART 1:

Overview of Healthy Food Purchasing Supplement Programs and Recommendations for the City of San Francisco

1. Introduction

The Board of Supervisors and the City and County of San Francisco have committed to ensuring that all San Franciscans are food secure and hunger-free by 2020, a commitment that includes: (1) increasing use of federal nutrition programs; (2) supporting community partners' ability to meet the need for food; (3) working with the private sector to create a healthy food purchasing supplement program; and (4) working with the private sector to increase all residents' ability to prepare food. Within this context, the Board of Supervisors seeks to advance the solutions that provide the greatest likelihood of improving food security for the largest number of people or the most vulnerable populations.

This report explores healthy food purchasing supplement programs, in which additional funds are given to beneficiaries to support the consumption of healthy foods, as one policy innovation that addresses the distinct but related concerns of nutrition, hunger, and support of local food systems. Food security is a complex issue that depends on a range of factors and requires the engagement of stakeholders representing diverse interests. As such, this issue necessitates a broad approach. Healthy food purchasing supplement programs have a place among a wider set of comprehensive policy solutions, but will not in isolation be sufficient to ensure food security. In particular, they can be highly effective in helping individuals who are able to purchase, store, and prepare foods to improve their nutrition.

1.1 Introduction to Food Security

The term *food security* is defined by the San Francisco Health Code as the ability of "all persons to obtain a nutritionally adequate, culturally acceptable diet at all times through local, non-emergency sources."[2] Food insecurity refers to a problem that is both more complex and more far-reaching than that of hunger: hunger refers to a physical sensation resulting from a lack of calories, while food insecurity exists whenever the ability to acquire enough nutritious food is limited or uncertain. Food insecurity can manifest itself in a variety of ways, including worrying that food will run out, buying cheaper nutritionally inadequate food, rationing or skipping meals, and at the most severe level, feeling hungry because there is not enough money for food.[3]

Households experiencing inadequate food supply commonly respond by making food budget adjustments, reducing food intake, and altering the types of food served. These responses result in a decrease in dietary variety and an increase in consumption of energy-dense foods, which tend to be of poor nutritional quality and less expensive (per calorie) than alternatives. Adults living in food-insecure households consume fewer weekly servings of fruits, vegetables, and micronutrients—a dietary pattern that is linked the development of chronic disease, including hypertension, hyperlipidemia, and diabetes.[4]

The San Francisco Food Security Task Force, an advisory committee to the Board of Supervisors, uses three pillars of food security adopted from the World Health Organization as a framework for evaluating food security in San Francisco:

- **Food Resources:** A person has the ability to secure sufficient financial resources to purchase enough nutritious food to support a healthy diet on a consistent basis;
- **Food Access:** A person has the ability to obtain affordable, nutritious, and culturally appropriate foods safely and conveniently; and
- **Food Consumption:** A person has the ability to prepare healthy meals and the knowledge of basic nutrition, safety, and cooking.

A healthy food purchasing supplement program most directly addresses the issue of *food resources* by increasing the financial resources of beneficiaries to purchase nutritious food, but it may have effects that spill over into the other pillars. *Food access* may increase if the incentive program increases demand for healthy foods, incentivizing local vendors to increase their stock of fresh produce and other healthy options. Many healthy food purchasing supplement programs include supplemental nutritional programming, such as healthy produce cooking demonstrations or online nutrition education,[5] that addresses the knowledge component of the *food consumption* pillar. As few healthy food purchasing supplement programs have the resources to integrate nutrition services directly into their programming, many programs form partnerships with existing health and nutrition networks to implement health-related programming.[6]

1.2 Food Security in San Francisco

Food security represents a significant barrier to healthy eating in San Francisco,[7] and the ability of the city's residents to acquire healthy nutritious food is limited by circumstances that can be altered by collective intervention. Within the broader context of ensuring that all San Franciscans are food secure, this report explores potential models of healthy food purchasing supplement programs and recommends comprehensive program design options for the City of San Francisco. The programmatic goals are twofold:

1. To increase food security in San Francisco by increasing financial resources to purchase nutritious foods; and
2. To increase the consumption of healthy foods.

1.3 Report Methodology

The factual content in this report comes from two major sources: a comprehensive review of relevant literature and a set of in-depth interviews with administrators of model healthy food purchasing supplement programs across the country. Twelve interviews covering 15 distinct program models were conducted between February 27 and April 8, 2014. Two additional healthy food purchasing supplement programs, researched through evaluations and reports, are discussed in the text. A list of all 17 major model programs is provided on the following page for reference. Detailed case studies of each program are provided in Part 2 of the report. The questionnaire used to guide program interviews appears in Appendix A.

Figure 1: Model Programs

Program Name	Location
Double Up Food Bucks (DUFB): Farmers' Market Program	Michigan (various locations)
Double Up Food Bucks (DUFB): Grocery Store Pilot	Detroit, Michigan
Double Value Coupon Program (DVCP)	24 states and D.C.
Fruit and Vegetable Prescription Program (FVRx)	7 states and D.C.
Greenbucks	New Bedford, Massachusetts
Health Bucks	New York City, New York
HealthyFood Program	South Africa
Healthy Incentives Pilot (HIP)	Hampden County, Massachusetts
Independent Health Nutrition Program	Western New York State
Kansas City Beans&Greens (KCBG)	Kansas City Metro Area
Market Bucks	Minnesota (various locations)
Market Match	California (various locations)
Market Match	New Orleans, Louisiana
Market Match at the Pacific Coast Farmers' Market Association (PCFMA)	Bay Area, California
SNAP+	Minnesota (various locations)
UCSF Fruit and Vegetable Voucher Pilot (UCSF Pilot)	San Francisco, California
VeggieRx	Bay Area, California

2. Overview of Healthy Food Purchasing Supplement Programs

Underpinning the City of San Francisco's definition of food security is the idea that an adequate diet requires more than a sufficient *quantity* of food—it must include foods of sufficient *quality and variety* as well. The *2010 Dietary Guidelines for Americans* emphasize consuming more of certain foods and nutrients such as fruits, vegetables, whole grains, and fat-free and low-fat dairy products, and consuming fewer foods with sodium, saturated fats, trans fats, cholesterol, added sugars, and refined grains.[8] While it is true that the diets of most Americans do not reflect federal dietary recommendations, the gap between the recommendations and actual consumption in the specified food groups is particularly acute for food-insecure individuals. The sub-populations relevant in the San Francisco context are described in Section 3.

One promising strategy to address this gap is through healthy food purchasing supplement programs. These programs are generally intended to increase the consumption of targeted foods that contribute to a healthy diet by influencing one or more of the many factors that affect adult food purchasing decisions. These factors can include food price, household income, knowledge or attitudes about certain foods, and food availability.[9] Targeted foods typically fall into a general food category (e.g. fruits and vegetables) due to the implementation challenges of identifying individual food items that meet specific nutritional criteria or contain a particular ingredient.[10]

2.1 Types of Incentive Programs

A review of existing literature reveals that there are four main approaches to increasing consumption of targeted foods: (1) offering nutrition education; (2) increasing access by increasing the supply of the targeted foods; (3) providing financial incentives; or (4) some combination of the three. *Nutrition education* seeks to increase knowledge about food and build skills around storing and preparing food. Common examples include nutrition classes and in-store signage. Programs using a *supply-side approach* aim to increase the availability of the selected foods. Healthy retail financing programs can be thought to take this approach.

This report focuses on *financial incentive* programs, which are interventions designed to change relative prices or increase financial resources in a way that makes targeted foods more affordable to individuals. These programs are often framed as a strategy to address two related social and economic concerns: access to affordable healthy foods and support for local economies.[11] Cash benefits, price discounts, and vouchers are all examples of this approach.[12]

Section 4 includes descriptions of existing and theoretical benefit design options utilizing financial incentives.

2.2 Financial Incentive Programs as Means of Increasing Consumption of Targeted Foods

The general concept of providing targeted financial incentives is well supported in academic literature. The majority of studies on healthy food purchasing supplement programs predominantly focus on fruits and vegetables as the targeted food category. Though the rationale is rarely stated explicitly in the literature, there are several reasons why this may be the case. One reason is that fruits and vegetables are perhaps the least controversial food group in terms of their connection to good health. In general, greater intake of fruits and vegetables is perceived to be better for health regardless of the baseline intake level, which cannot be said about other food groups. Additionally, identifying foods in an incentive program can easily become controversial, with different interest groups wanting certain foods included and others excluded. For example, nutritionists may have a very different view on what is considered "healthy" than food manufacturers. Finally, utilizing categories of foods instead of specific ingredients is often easier from a program implementation standpoint because it is easier for retailers and beneficiaries to identify allowed

foods.[13] Later in this report, the analysis highlights alternative viewpoints on foods besides fruits and vegetables that can be reasonably viewed as healthy, but for the purpose of the literature review in this section, the emphasis is on fruits and vegetables.

Food-insecure populations face unique financial barriers to healthy eating and frequently cite cost as a reason for low consumption rates of fruits and vegetables. In the 2011 California Dietary Practices Survey, more than half of those surveyed making less than $15,000 a year (53%) reported eating fewer than five fruits or vegetables during the previous day,[14] which is the minimum number of servings recommended for good health by the federal government.[15] Twelve percent of this group reported eating no fruits or vegetables at all. (The *2010 Dietary Guidelines for Americans* actually recommend nine servings daily for optimal health: five servings of vegetables and four servings of fruit).[16] Within this income group, 27 percent stated that the one reason they did not eat more fruits and vegetables was that they were "too expensive." Cost was the most frequent reason given, only surpassed by the "other" option (39%), a catch-all for any reason given besides cost, availability, "not in the habit," or the fact that fruits and vegetables take too much time to prepare.[17] Many studies support the influence of perceived cost and find that there is a statistically significant difference between fruit and vegetable expenditures by low-income households in comparison with higher-income households.[18]

These relatively low consumption rates have important consequences for overall health, given that research has shown strong evidence that eating the recommended daily amount of fruits and vegetables reduces the risk of hypertension, coronary heart disease and stroke, and may also reduce risk of certain types of cancers. Some research also suggests a reduced risk of dementia, certain eye diseases, rheumatoid arthritis, osteoporosis, certain lung diseases, and asthma through regular recommended consumption.[19]

To be sure, factors such as time constraints, lack of access, and lack of adequate space to prepare food are also important reported barriers to healthy eating and should be considered in designing a program, but it is important to acknowledge that these barriers are not addressed by financial incentive programs alone. Offering nutrition education programs and increasing access to healthy foods by encouraging supply can help overcome these barriers. Yet, by themselves, such interventions do not address the relatively low purchasing power of food-insecure individuals and the frequent perception of the high cost of healthy foods. While important in a comprehensive strategy to address food insecurity, they must be coupled with a type of financial incentive program to achieve the greatest impact on food security.

2.2.1 Effects on Participants: Food Security, Consumption Patterns, and Health Outcomes

The effects on individuals participating in healthy food financial incentive programs vary depending on the goals and design of the program, but the literature reveals a very clear focus on either changes in consumption patterns and overall diet composition or on health outcomes such as weight management. None of the research on targeted financial incentive programs identified in this analysis explicitly includes impacts on food security as a metric for measurement. In this, there exists a possible tension between programs whose primary goal is to reduce food insecurity and programs whose goal is to create sustained improvements in diet. While these are not mutually exclusive goals, in general targeted healthy food purchasing supplement programs are focused on individuals receiving sufficient calories, but an insufficient level of nutrition.

Existing research signals that financial incentives can effectively increase fruit and vegetable consumption, but these outcomes are contingent upon appropriate program design and a clearly identified target population. A systematic review of the literature reveals increases in consumption of fruits and vegetables among healthy adults on the order of

0.1 to 1.4 servings per day. Individuals with preexisting health conditions have trended toward greater increases in consumption than healthy adults. In general, interventions pairing the financial incentive with nutrition education and counseling have resulted in greater effects.[20]

Many of the studies focus on relatively small samples, but one report in particular stands out in terms of its rigorous methodology and large sample size. A randomized, controlled trial of the Healthy Incentives Pilot (HIP) in Massachusetts, which offered a financial incentive credit for SNAP recipients, found that HIP participants increased their intake of fruits and vegetables by 25% per day over the group not receiving the financial incentive (0.22 cups or the equivalent of about a half a serving). These findings were consistent across different demographic groups in terms of age, employment status, the presence of children in the household, and amount of the SNAP benefit. A final report, to be issued later this year, will identify whether this dietary change was present a year after the termination of the pilot.[21]

A frequent limitation in the research is the lack of evidence on whether the increases are sustained over time. Several studies reviewed followed the participants only for a short time or, if they planned a longer follow-up period, were unable to complete because a sufficiently high number of participants was lost to follow-up. However, a WIC fruit and vegetable pilot conducted in 2006 resulted in intake gains that were still present six months after the pilot ended.[22]

2.2.2 Effects Beyond Participants: Positive Economic Benefits to Local Economy

The benefits of financial incentive programs extend beyond the health and diet of the participants and often have a stimulating effect on local economies, as well. Existing programs based at farmers' markets frequently report that financial incentive programs bring new customers to the markets. For example, the Double Up Food Bucks farmers' market program in Michigan saw an increase of 16 percent in the total number of SNAP users at the markets where the incentive program was present and a 54 percent increase in SNAP dollars redeemed.[23] Minnesota saw an even greater increase with its Market Bucks program and doubled the number of SNAP customers at farmers' markets between 2009 and 2010.[24] To be clear, these figures are cited in program evaluation reports and were not the result of a scientific evaluation; so, the increases cannot be attributed solely to the presence of the incentive programs. The specific reasons new customers chose to shop at the market are not provided, and other factors, such as changes in market locations or more intensive outreach and advertising, may also play a role.

Nevertheless, other market-based programs have reported increases in sales as a result of healthy food purchasing supplement programs. The strong majority (90%) of farmers' market vendors participating in the Double Up Food Bucks (DUFB) program in Michigan reported selling more fruits and vegetables, and 85% shared that they had made more money as a result. In 2012, the DUFB program farmers sold $1.9 million of Michigan-grown fruits and vegetables to customers using DUFB coupons and SNAP dollars.[25] Vendors consistently view such programs as having positive impacts on their overall sales figures. Seventy-five percent of farmers participating in New York's Health Bucks program also reported that they made more money at the market, sold more fruits and vegetables (72%), and that more new customers shopped at their stands (74%).[26]

Because nearly all of the programs surveyed in terms of economic effects are based at farmers' markets, very little is known about how financial incentive programs might impact sales for other food retail locations. In addition, it is difficult to draw conclusions from economic multiplier figures due to the specific assumptions about local economies that factor into such models.

Figure 2: Evidence on Impact of Financial Incentive Programs

Key Findings:

- Food-insecure individuals consistently report that the cost of fruits and vegetables is a prohibitive barrier to healthy eating. Nutrition education and supply-oriented strategies are unable to address this on their own, highlighting a need for financial incentive programs targeting specific foods or food categories.
- Ample evidence in scientific literature suggests that financial incentive programs can increase fruit and vegetable consumption when appropriately designed.
- The effects of incentive programs often extend beyond the participants and can benefit the local economy.

3. Current State of Food Security in San Francisco

Section 3 provides a brief overview food security in San Francisco, with a special focus placed on unmet need within the current landscape. In order to improve food security for the largest number of people or the most vulnerable populations, a healthy food purchasing supplement program must be tailored to address shortcomings within the current system. Existing gaps primarily stem from one of two sources: (a) vulnerable populations who are not served by federal nutrition assistance programs, or (b) limitations of current public and non-profit assistance programs with regard to their ability to ensure food security. A healthy food purchasing supplement program can play an important role in bridging both of these gaps by increasing beneficiaries' financial resources to purchase healthy foods.

3.1 Selected Demographic Information and Income Thresholds Related to Food Security

Figure 3: San Francisco at a Glance

Population	
Total	805,240
Households	345,810
Family Households	44%
Households with Children	18%
Average Household Size	2.3
Average Family Household Size	3.3

Race/Ethnicity	
Black/African American	6%
Asian	33%
White	48%
Native American Indian	0.5%
Native Hawaiian/Pacific Islander	0.4%
Other/Two or More Races	11%
% Latino (of Any Race)	15%

Age	
0-17	13%
18-34	30%
35-59	37%
60 and Older	19%

Educational Attainment	
High School or Less	29%
Some College/Associate Degree	20%
College Degree	31%
Graduate/Professional Degree	20%

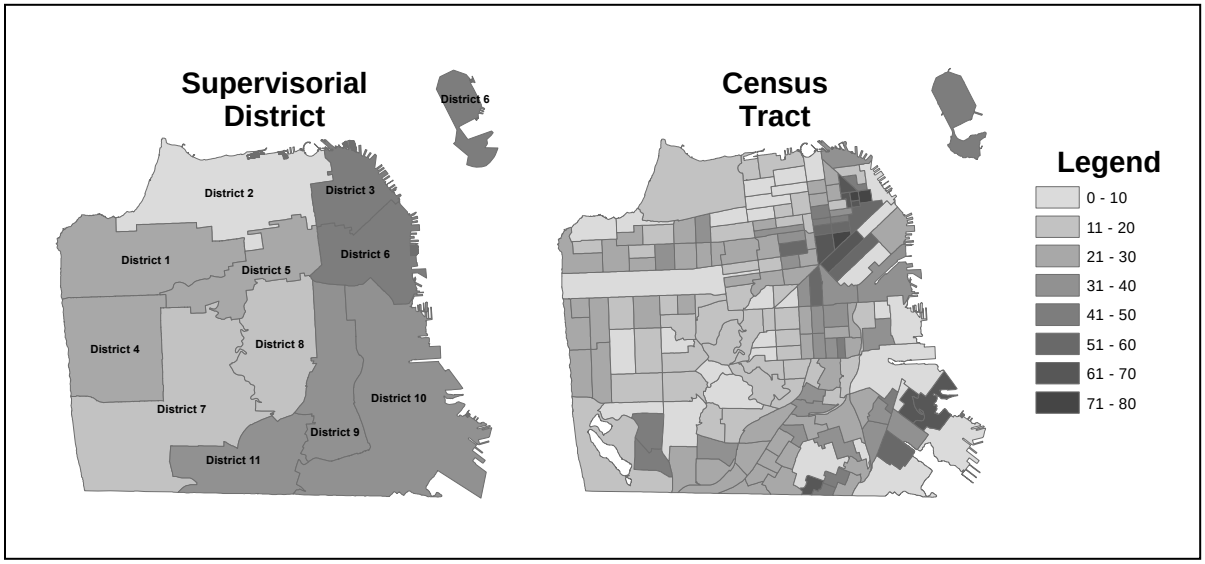
Linguistic Isolation	
% of All Households	14%
% of Spanish-Speaking Households	23%
% of Asian-Speaking Households	40%

Source: Socioeconomic Profiles for 2012 Supervisorial Districts, San Francisco Department of City Planning.

The City of San Francisco (population 805,240) performs well across a variety of socioeconomic indicators, including median per-capita income. The relative prosperity of the city is closely related to its cost of living, which is among the highest in the country: it costs an estimated $84,133 for a family of four to live in San Francisco modestly, but comfortably.[27] Since federal poverty guidelines are consistent across all mainland states and form the basis of eligibility for federal assistance programs, regardless of regional differences in cost of living, the discrepancy between these figures and the economic reality of high-cost cities like San Francisco is particularly acute.

Reflecting the high cost of living in San Francisco, the San Francisco Food Security Task Force classifies individuals and families earning less than 200% of the Federal Poverty Level (FPL) as at risk for food insecurity; this threshold was $47,000 for a family of four in 2013.[28] It is estimated that 28% of San Francisco residents meet this criterion. Further, 12% of residents are below 100% FPL ($23,550 for a family of four in 2013).[29] Figure 4 shows a spatial distribution of residents below 200% FPL by San Francisco district and federal census tract.

Figure 4: Percent of Households Below 200% FPL by District and Census Tract



Source: Source: Food Security Task Force, *Assessment of Food Security in San Francisco 2013*.

Although specific regions of the city are home to relatively higher concentrations of residents below 200% of the federal poverty level, vulnerability for food security exists throughout San Francisco. This reality—combined with the observation that urban residents shop throughout a city for food, not just in the neighborhood where they live[30]—suggests the need for a healthy food purchasing supplement program that includes a citywide vendor network.

3.2 Vulnerable Subpopulations

Several subpopulations fall under the general umbrella of residents below 200% of the federal poverty level, each with distinct vulnerabilities in terms of food security. With the implementation feasibility of a healthy food purchasing supplement program in mind, this section focuses on vulnerable subpopulations that are substantial in size and can be easily identified by a single characteristic. These characterizations are not necessarily mutually exclusive: a food-insecure resident may fall into more than one of the groups discussed below.

Healthy food purchasing supplement programs are relatively more effective at increasing food security among certain populations—specifically, those which simply lack financial resources to purchase enough healthy foods but do not face other significant barriers. The analysis below is restricted to such groups. Subpopulations which routinely struggle to obtain an adequate number of calories, such as the homeless, or populations lacking the ability to physically shop for food and prepare meals, such as limited-mobility seniors, may be better served by a different type of supplemental nutrition programming.

3.2.1 CalFresh/WIC Recipients

The largest, and most easily identifiable, subpopulations for whom a healthy food purchasing supplement program could help to reduce food insecurity are those already receiving federal nutrition benefits. This includes individuals currently receiving CalFresh (California's name for the federal Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps) and WIC (a federally funded supplemental nutrition program that serves women and young children).[i] Figure 5 below lists the number of CalFresh and WIC recipients by district. There are a total of 50,815 SNAP Recipients and 15,625 WIC Recipients in San Francisco.

Figure 5: CalFresh and WIC Recipients by District

Supervisorial District	Number of Individuals Receiving CalFresh	Number of Individuals Receiving WIC
1	1,958	660
2	360	595
3	2,247	1,043
4	1,336	565
5	1,936	695
6	5,013	882
7	792	1,156
8	892	604
9	2,702	2,511
10	6,366	3,667
11	3,713	2,636
Total	**50,815**	**15,625**

Source: Source: Food Security Task Force, *Assessment of Food Security in San Francisco 2013*.
Notes: District figures do not add total because total includes unmapped.

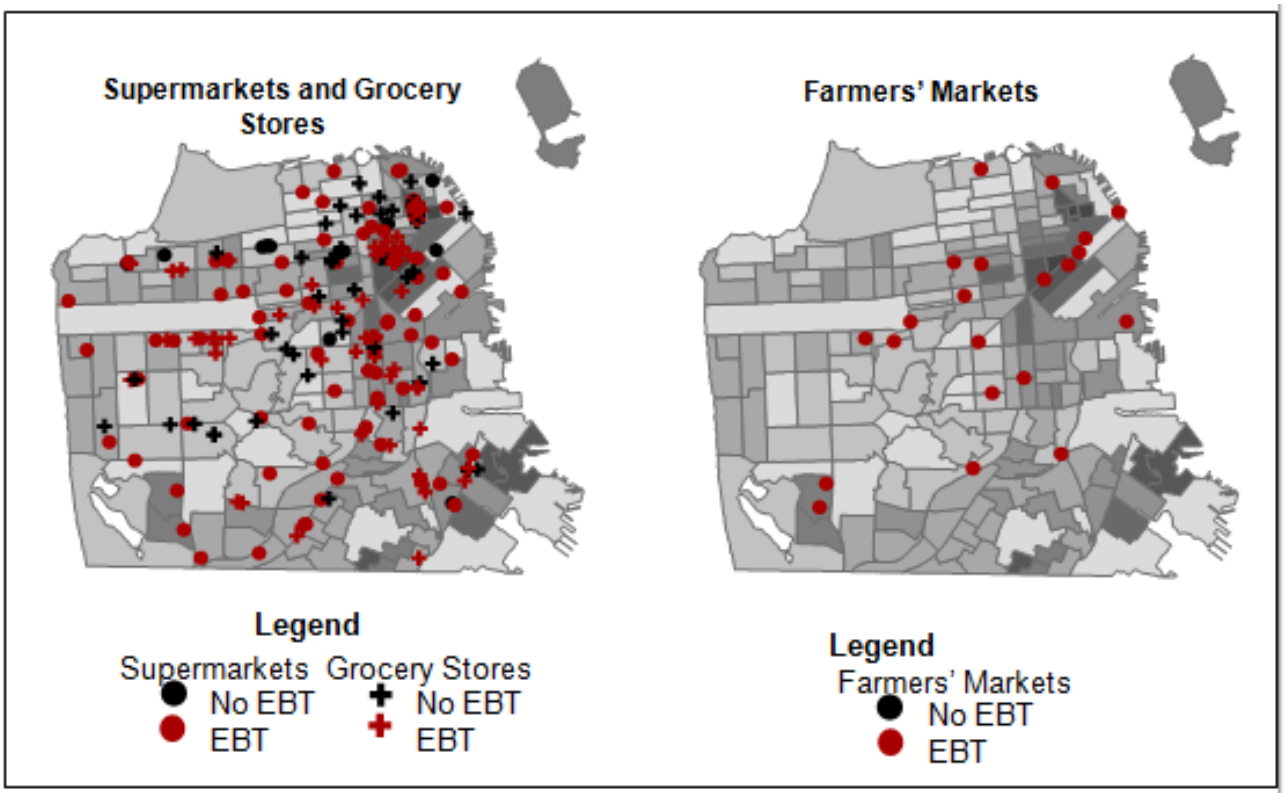
CalFresh and WIC benefits are redeemable at food retail establishments and farmers' markets. Of the 84 chain supermarket locations in San Francisco, 71 (85%) accept CalFresh EBT[ii] and 23 (27%) accept WIC checks. There are an additional 126 independent grocery stores in the city, of which 74 (59%) accept CalFresh EBT and 9 (7%) accept WIC.[31] While all farmers' markets in San Francisco accept CalFresh EBT, it is relatively difficult to redeem traditional WIC benefits there.[iii] Figure 6 shows the spatial distribution of retailers that accept CalFresh EBT in San Francisco.

[i] In California, most households eligible for CalFresh are under 130% FPL. WIC benefits are available to pregnant, breastfeeding, postpartum women with children aged 0 - 5 who earn less than 185% FPL.

[ii] CalFresh benefits are distributed on electronic benefit transfer (EBT) debit cards.

[iii] This is because CalFresh EBT can be processed at a central market tent, while WIC benefits must be redeemed directly with farmers who are WIC certified.

Figure 6: Supermarkets/Grocery Stores and Farmers' Markets That Accept CalFresh EBT



Source: Source: Food Security Task Force, *Assessment of Food Security in San Francisco 2013*.

CalFresh is currently underutilized by many who are eligible: it is estimated that only about 50% of San Francisco's eligible residents are currently participating in CalFresh.[32] Immigrants, in particular, underutilize CalFresh out of confusion regarding eligibility requirements and concern that applying for or receiving benefits will affect their immigration status. In addition, households with undocumented family members may be hesitant to apply for CalFresh because the program requires everyone in the household to verify immigration status to qualify.[33]

Further, CalFresh benefit amounts are too low to sustain food security, especially in a high-cost city such as San Francisco where benefit amounts are not indexed to regional food costs. In 2012, the average individual CalFresh benefit amount was $149.05 per month, or 1.60 per meal.[34] Households tend to spend their benefit allotment quickly, typically spending 80% of benefits within two weeks of issuance.[35]

3.2.2 Supplemental Security Income Recipients

Supplemental Security Income (SSI) recipients constitute another large and easily identifiable group at risk for food insecurity, which may benefit from a healthy food purchasing supplement program. SSI is a federal program that provides cash benefits to low-income seniors and adults with disabilities. In 2013, there were 45,223 SSI recipients in San Francisco.[36]

When SSI was enacted in 1974, California determined that most SSI recipients would qualify for an average of $10 in CalFresh benefits per month and decided to "cash out" SSI recipients' CalFresh benefits, adding $10 to the SSI benefit to save administrative costs. California is the only state that maintains a "cash out" policy excepting SSI recipients from receiving federal nutrition benefits. The maximum California SSI benefit in 2013 was $866.40 per month for an aged or disabled single person living independently. The maximum SSI benefit for seniors covers only 62% of the basic costs of living in San Francisco for a senior who owns a home outright and 38% of the basic costs of living for a renter, according to the California Elder Economic Security Index, which estimates a retired adult needs $27,282 to adequately meet his or her basic needs in San Francisco.[37]

Relatively low monthly benefit amounts, combined with the fact that CalFresh is not accessible to this population, suggest the need for other resources to assist the SSI population in purchasing healthy food. However, a key consideration is that only SSI recipients without mobility constraints are most appropriately served by healthy food purchasing supplement programs, as beneficiaries must be able to physically redeem their benefit and transport food purchases in most program designs.

3.2.3 Other Seniors

As less than 25% of San Francisco's 109,842 seniors receive SSI benefits, many seniors are not captured within that subpopulation. Approximately 38% (40,603) live below 200% of the federal poverty line, putting a large percentage of this population at risk for food insecurity.[38] Furthermore, the San Francisco Department of Aging and Adult Services estimates that over 19,000 seniors (age 65+) live with the threat of hunger.[39]

As is the case with SSI, seniors without mobility constraints stand to benefit most from healthy food purchasing supplement programs because they are physically able to purchase and transport foods. Seniors with mobility constraints may be better served by existing city and community support services, including the Department of Aging and Adult Services Home Delivered Meals Program, which supplies 3,920 meals per day, and the Home Delivered Grocery Program.[40]

3.2.4 Residents of Housing Units That Lack Complete Kitchens

A lack of kitchens in San Francisco's Single Room Occupancy (SRO) hotels provides an impediment to food security. Approximately 19,695 housing units (out of 376,940 total units) lack a complete kitchen. Residents living in housing units that lack a complete kitchen, defined as including a sink with a faucet, a stove/range, and a refrigerator, do not have the capacity to cook or store food. This represents a significant barrier, both in terms of food security and healthy eating, as such individuals often must rely on prepared meals and cannot store perishable items.[41]

While this population may benefit from a healthy food purchasing supplement program, additional efforts to support or fund education efforts around preparing healthy food with limited facilities must be integrated into such a program to impact this population most effectively. Several community programs support tenants of SRO hotels in learning to cook nutritious meals with limited equipment and space, yet the need for such programming exceeds availability.[42]

3.2.5 Individuals Income Ineligible for CalFresh, but Below 200% FPL

As previously mentioned, federal poverty guidelines are not indexed to reflect regional differences in cost, and they are therefore an inadequate indication of need in high-cost cities such as San Francisco. As a result, many of San Francisco's residents do not earn enough income to purchase nutritious foods, but are ineligible for federal benefits. For example, an individual working full-time at San Francisco's minimum wage, with rent and utility expenses of $1,150 per month (an extremely low amount), most likely earns too much to qualify for CalFresh benefits.[43]

3.3 Impact of Existing Healthy Food Purchasing Supplement Programs

A number of small-scale efforts to help vulnerable individuals purchase healthy foods are already in place in San Francisco. For example, the USDA awards state-level grants to provide WIC participants and low-income seniors with coupons that can be exchanged for eligible foods (fruits, vegetables, honey, and fresh-cut herbs) at farmers' markets. The supplemental WIC Farmers' Market Nutrition Program (FMNP) provides coupons to eligible WIC participants in addition to their regular WIC benefits. San Francisco issued 2,000 coupon books in 2013, each worth $20, and observed a redemption rate of 77%.[44] Similarly, San Francisco issued 2,000 Senior Farmers' Market Nutrition Program coupon books in 2013, each worth $20, and observed a redemption rate of 84%.[45]

Existing healthy food purchasing supplement programs within the City of San Francisco are administered by non-profits and limited to specific farmers' markets. Market Match is a statewide healthy food purchasing supplement program that matches a customer's federal nutrition benefits at farmers' markets. The program is operated by community-based organizations and farmers' market operators; locally, the Ecology Center administers the program in partnership with the Pacific Coast Farmers' Market Association (PCFMA), the Agricultural Center of Marin, and the Mission Community Market. At PCFMA farmers' markets, CalFresh beneficiaries are eligible receive an extra $5 when they spend at least $10 of their CalFresh EBT benefits.

The Market Match program is currently available at the following markets:[46]

- Castro Farmers' Market;
- Divisadero Farmers' Market;
- Fillmore Farmers' Market;
- Glen Park Farmers' Market;
- Inner Sunset Farmers' Market;
- Kaiser Permanente San Francisco Farmers' Market;
- Mission Bay Farmers' Market at UCSF;
- Upper Haight Farmers' Market;
- Stonestown Farmers' Market;
- Mission Community Market; and
- Agricultural Institute of Marin Market.

Although several of the markets listed above operate year round, the PCFMA Market Match program only offers incentives during the summer months.[47]

Crucially, the non-profit sponsored Market Match incentives are not offered at the San Francisco markets with the highest volume of EBT transactions. Figure 7 below provides a snapshot of EBT transactions at San Francisco farmers' markets for the month of December 2013, the only month for which this type of disaggregated data was available for this report. Of the top five farmers' markets, ranked according to EBT transactions, only one offers matching incentives.[iv] Notably, the Heart of the City farmers' market, which accepts over $200,000 each year in EBT purchases and accounts for nearly 70% of all EBT sales at farmers' markets in San Francisco, does not offer any kind of matching program.[48]

[iv] The Alemany Farmers' Market provides matching incentives independent of the Market Match program.

Figure 7: Snapshot of Monthly Farmers' Market EBT Transactions (December 2013)

Market Name	# of EBT Transactions	$ of EBT Transactions	Matching Program?
Heart Of The City Farmers' Market	937	$17,436	No
Alemany Farmers' Market	182	$3,387	Yes
Ferry Plaza Farmers' Market-Cuesa	42	$782	No
Clement Street Farmers' Market	25	$465	No
Mission Community Market	25	$465	No
Castro Certified Farmers' Market	16	$298	Yes
Divisadero Certified Farmers' Market	14	$261	Yes
Inner Sunset Farmers' Market	13	$242	Yes
Fillmore Farmers' Market	5	$93	Yes
San Francisco Farmers' Market, Fort Mason	5	$93	No
Noe Valley Farmers' Market	1	$19	No
Glen Park Certified Farmers' Market	0	$0	Yes
San Francisco Farmers' Market, Crocker	0	$0	Yes

Sources: City of San Francisco; the Ecology Center (Market Match information).
Notes: Incomplete list of markets. Amount estimated based on number of transactions as percentage of total transactions.

The VeggieRx program is a final healthy food purchasing supplement program that currently operates in the Bay Area. The program targets patients at community health clinics with risk factors for diabetes; participants and their families attend eight clinic sessions over 16 weeks to receive nutrition education. At each session, participants receive paper vouchers worth $1 per day per person in the household that must be spent on fresh fruits and vegetables at participating farmers' markets. VeggieRx prescriptions are redeemable at all PCFMA farmers' markets in San Francisco, as well as at the Heart of the City farmers' market in 2013.

VeggieRx has demonstrated success, as its participants have shown decreases in BMI and have reported increased consumption of healthy foods. Still, the program was only able to serve approximately 500 individuals in 2013, and it incurs high administrative costs due to the staffing demands of its clinic sessions.[49]

3.4 Unmet Need and Role of a City-Sponsored Healthy Food Purchasing Supplement Program

Key unmet needs related to food security in the City of San Francisco are summarized below.

Figure 8: Unmet Need in San Francisco

Key Findings:

- CalFresh is underutilized by many who are eligible. Even among participants, CalFresh benefit amounts are too low to sustain food security.
- SSI recipients and other residents earning above the eligibility requirement for CalFresh but below 200% of the federal poverty level are at risk for food insecurity, but they not served by federal nutrition assistance programs.
- Existing non-profit sponsored healthy food purchasing supplement programs are limited in their reach. They operate at a small number of farmers' markets with relatively low volumes of EBT transactions. Nearly all exclusively target CalFresh recipients.

A well-designed healthy food purchasing supplement program can decrease unmet need in San Francisco by targeting populations not served by current programming and addressing the shortcomings of existing programs. For example, a city-sponsored program that extends its reach beyond the CalFresh population can improve food security among vulnerable populations ineligible for or unenrolled in CalFresh. A program that expands the matching incentive model to include markets with a high volume of EBT transactions can make healthy food benefits more accessible to vulnerable populations.

Specific recommendations for citywide program designs are presented in Section 6 of this report. However, before potential programs can be recommended and evaluated, it is critical to explore and analyze the key features that underlie any program design. This analysis is the focus of the next section.

4. Program Design Features

This section presents the City of San Francisco with an overview of the primary design elements to consider in developing a healthy food purchasing supplement program. To design a complete program, the city must answer the following questions:

- What population(s) will the program target?
- How much money will beneficiaries receive?
- What foods will beneficiaries be allowed to purchase with these funds?
- How and where will beneficiaries receive and redeem their benefits?
- Which organization(s) will administer the program?

In order to help San Francisco make informed decisions about the key questions above, this section lays out a range of choices for each design feature and analyzes the major considerations and tradeoffs between possible options. Four major features—beneficiary populations, benefit amount, purchasing restrictions, and administration—are discussed independently because options along these features may be selected somewhat autonomously from one another. In contrast, benefit structure, vendor networks, and technology are analyzed jointly, since all three considerations work together to specify how a program distributes benefits and allows for their redemption.

The following analysis limits its focus to the program design options most relevant to a healthy food purchasing supplement program in the City of San Francisco. An exhaustive range of options for each design feature, along with more detail regarding the advantages and challenges associated with each option, is provided in Part 2 of this report. The comprehensive range of options provided in Part 2 is designed as a reference tool to supplement the analysis presented in this section.

4.1 Beneficiaries

A key aspect of any healthy food purchasing supplement program is the beneficiary population it targets. Designing a food supplement program to reach all residents under 200% FPL is an important theoretical goal for the City of San Francisco, and it would confer clear benefits on needy households. However, the 200% FPL umbrella contains many distinct subpopulations, each with a diverse set of needs, challenges, and constraints.

For the purposes of analysis and discussion, this section divides potential beneficiary populations into three categories: recipients of existing nutrition benefits, beneficiaries of other government assistance programs, and recipients of broad community services and supports. For reference, a more fine-grained analysis of specific subpopulations is available in Part 2 of this report.

Many vulnerable individuals in San Francisco currently receive government nutrition benefits in the form of CalFresh, WIC, and Senior Farmer's Market Nutrition Program (SFMNP) coupons. Across the country, SNAP recipients are the most frequent beneficiaries of model programs. They are targeted both by farmers' market programs such as Market Match and by innovative pilots such as HIP that operate across grocery stores. WIC and SFMNP recipients are targeted by several programs operating at farmers' markets, such as Kansas City Beans&Greens. These populations typically receive matching incentives for spending existing benefits on healthy local foods.

In practical terms, recipients of existing nutrition benefits are easiest for a new healthy food purchasing supplement program to target because the infrastructure for eligibility determination and benefit distribution already exists. Further, because many CalFresh participants also receive other government benefits such as Medi-Cal, SNAP participation in particular is sometimes viewed as a proxy for economic vulnerability.

However, by limiting its set of beneficiaries to these populations, a program may miss the opportunity to reach key vulnerable subpopulations. CalFresh is underutilized in the city: only about 50% of San Francisco's eligible residents are currently participating in CalFresh.[50] In California more generally, seniors receiving Supplemental Security Income (SSI) are not eligible for CalFresh benefits. And, as discussed in the demographic profile of San Francisco, many individuals may be income-ineligible for CalFresh but still at risk for food insecurity due to San Francisco's high cost of living.

A broader category of potential beneficiaries is the set of individuals currently receiving assistance from other types of government programs. In San Francisco, this category includes the 45,000+ seniors on SSI,[51] low-income individuals receiving Medi-Cal or Healthy San Francisco benefits,[v] and recipients of government housing assistance.

These populations are less commonly targeted by healthy food purchasing supplement programs than recipients of nutrition benefits, but model programs do exist. For example, the Greenbucks program in Massachusetts made its benefit vouchers available to local non-profits for distribution. Any individual on federal nutrition assistance or a safety net program such as Medicaid was eligible to apply for the benefit. In practice, some non-profits took applicants at their word without requiring eligibility verification.[52] This allowed benefits to reach anyone who requested them. In California, Market Match offers incentives to SSI recipients in Los Angeles County.[53] During their first visit to a farmers' market, SSI recipients present paper verification of their eligibility status, and their information is entered into a market database. At subsequent visits, recipients are checked against this database and may then make initial purchases with cash, which are matched with incentives in the market currency.

Targeting a healthy food purchasing supplement program at all individuals receiving government assistance brings clear benefits in terms of reaching vulnerable subpopulations, as compared with targeting nutrition benefit recipients alone. Specifically, this strategy could enable San Francisco to reach vulnerable seniors through the SSI program and undocumented individuals through Healthy San Francisco. Recipients of government assistance typically have documentation available, which can facilitate eligibility determination for a supplement program. The challenges of this approach stem from the lack of current nutrition benefit infrastructure for these populations. The city would need to build partnerships across agencies, engage in significant participant outreach, and work with vendors to establish an effective program aimed at these populations.

The third and broadest approach to selecting beneficiaries involves extending program eligibility to individuals receiving a broad array of community services and supports. Uninsured individuals served by community-based health clinics and populations served by a variety of community-based organizations are examples of this subpopulation.

Several existing programs have taken this approach. Beneficiaries in the FVRx program are drawn from patient populations at participating health clinics on the basis of high BMI among children and pregnant women. The Bay Area-based VeggieRx program similarly works with community-based health clinics to enroll patients with demonstrated risk factors for diabetes. On a far larger scale, Health Bucks, a government-administered program, has demonstrated the feasibility of this approach in recent years. While the majority of the program's benefits accrue to SNAP recipients in the form of matching funds, Health Bucks also partners with over 250 community-based

[v] Healthy San Francisco is a citywide health access program for low-income individuals; more information is available at http://healthysanfrancisco.org/healthcare-reform/what-will-happen-to-hsf/.

organizations to distribute benefits. Diverse organizations such as schools, daycares, health clinics, and church groups may apply for the right to distribute Health Bucks to the individuals they serve, regardless of specific income or government assistance eligibility.[54]

By targeting this broad population, a healthy food purchasing supplement program can succeed in extending its reach to individuals who currently fall through the cracks of the government safety net. This is an attractive option for a program that seeks to be ambitious in scope and impact. The major challenges are a lack of benefit infrastructure and the dispersed nature of the potential beneficiaries. In the case of Health Bucks, partnering with community-based organizations to reach vulnerable populations creates a decentralized structure that can complicate the enforcement of programmatic standards. In particular, while the program requires that community-based organizations link the distribution of Health Bucks to some form of health or nutrition programming, the quality and content of such programming likely varies widely across organizations.

The following table summarizes key aspects of the discussion above.

Figure 9: Beneficiary Eligibility Options

San Francisco program enrollment data included where possible.

Beneficiaries		
Eligibility Criteria	**What Works**	**Challenges**
Existing Nutrition Programs Programs can target recipients of existing federal, state, or local nutrition benefits *Key Subpopulations:* • CalFresh (50,815)* • WIC (15,625)* • WIC/Senior Farmers' Market Nutrition Program (2,000 coupon books per year)**	• Easiest populations to target because of existing infrastructure for eligibility determination, benefit distribution, etc. • Can build on numerous examples of successful model programs across the country	• Misses key vulnerable populations not eligible for or not served by existing nutrition programs (e.g. seniors on SSI)
Other Government Assistance Programs Program can target individuals receiving forms of government assistance beyond nutrition benefits *Key Subpopulations:* • SSI (45,223)* • Medi-Cal and Healthy San Francisco • Housing assistance	• Allows broader reach of food-insecure populations • Can potentially leverage existing government assistance program infrastructure for eligibility determination, benefit distribution, etc.	• Requires program administrators and staff to be familiar with documentation from several programs • Lacks infrastructure specific to nutrition programs
Broad Community Services and Supports Programs can recipients of a variety of social services provided by community-based organizations and community health clinics *Key Subpopulations:* • Clients of health clinics or health providers • Communities served by CBOs	• Allows broadest reach of food-insecure individuals	• Has little existing infrastructure to leverage • Requires strong partnerships with community-based organizations or medical providers for success

*Source: Food Security Task Force, *Assessment of Food Security in San Francisco 2013*.

**Source: San Francisco Department of Aging and Adult Services.

A healthy food purchasing supplement program in San Francisco may choose to target one or more of the broad beneficiary categories discussed above. An important tradeoff exists, however, between the administrative simplicity of a program's design and the scope of its beneficiary reach. By limiting itself to CalFresh or WIC beneficiaries, for instance, a program can retain an elegant design with a single distribution mechanism and a targeted vendor network.

In contrast, a program that seeks to serve both CalFresh recipients and undocumented households served by community organizations must recognize that these populations have disparate levels of need, nutrition education, familiarity with benefit technology, etc. Reaching a broad set of beneficiaries is possible, but this goal may require compromise and accommodation in other aspects of program design.

4.2 Benefit Amount

After selecting a target beneficiary population, San Francisco must determine what amount of benefits participants will receive. The economic literature does not provide a clear recommendation of the "right" benefit amount (in economic terms) to achieve desired results. Typically, the "right" amount is considered to be the amount needed to induce a desired change in consumer behavior. Using data on elasticity, an economic measurement assessing individuals' purchasing behavior in response to price, the USDA Economic Research Service estimates that a 10% price reduction in produce price for low-income individuals would result in a 2.1 to 5.2% increase in fruit consumption and a 2.1 to 4.9% increase in vegetable consumption.[55, vi] This and other studies often draw on data from narrowly defined beneficiary populations such as SNAP, however, and the results are difficult to generalize.

In practical terms, existing programs that distribute up-front benefits without a matching incentive structure have typically selected benefit amounts that are simple for beneficiaries to understand and simple to administer. For example, the FVRx and VeggieRx programs provide "prescriptions" worth $1 per person per day in each participating household because this number makes intuitive sense to beneficiaries.[56] Other programs giving out up-front benefits have chosen a particular dollar amount for each voucher or token but have not limited the number of benefits each participant can receive. Health Bucks created $2 vouchers for ease of administration, but beneficiaries are not limited to a single voucher.

Nearly all programs distributing benefits as matching incentives have opted to match participant funds with benefits dollar for dollar—again, largely because this system is easy to understand. The only exceptions noted among the programs interviewed are the Bay Area Market Match program, which matches $10 of spending with a $5 incentive, and Health Bucks, which matches $5 of spending with a $2 voucher for select populations. These programs felt that the smaller incentives could still change behavior while saving on benefit costs. In nearly all cases, matching benefits are capped at a certain dollar amount. This can range from $5 per market day in Minnesota's Market Bucks program to $25 per market day in some seasons of Market Match in New Orleans.

Among the surveyed programs, funding availability has been the largest driver of decisions about benefit amount. Yet beyond cost, several other considerations can play a role. For example, Double Up Food Bucks decided to cap its matching benefit at $20 per week at farmers' markets because administrators felt that $40 was all a family could reasonably spend on fruits and vegetables in a week.[57] The Greenbucks program priced its vouchers at $2.50 in consultation with farmers to ensure the vouchers were in an appropriate denomination given the price of food.[58] Finally, programs issuing benefits that must be redeemed all at once, e.g., one-time paper vouchers, have attempted to issue benefits in denominations that can be completely used up by a typical purchase at a store or market. A similar set of considerations will be relevant to San Francisco as the city determines a benefit amount for its healthy food purchasing supplement program.

[vi] In this study, the low-income category was defined as individuals eligible for SNAP benefits.

4.3 Purchasing Restrictions

Another key consideration for a healthy food purchasing supplement program is the type of foods beneficiaries may purchase with their benefits. Purchasing restrictions in existing programs lie on a spectrum from very narrow, allowing the purchase of only fresh fruits and vegetables, to very broad, incorporating prepared foods into allowable items for purchase. This range of options is discussed below in terms of opportunities and challenges; a table summarizing the key aspects of purchasing restriction options appears near the end of the section.

A number of programs surveyed restrict benefits to the purchase of fresh fruits and vegetables. This option is viewed as the "easiest" for vendors and beneficiaries in terms of product identification and has the additional advantage of targeting investment in low-calorie, nutrient-dense foods. A somewhat less restrictive option is to allow fresh, frozen, and canned fruits and vegetables. For example, the UCSF Pilot permitted beneficiaries to purchase fresh or frozen—but not canned—fruits and vegetables. While this type of restriction allows for broader beneficiary choice and increased flexibility for recipients that have limited storage for fresh produce, it can be more difficult for vendors and beneficiaries to identify eligible foods, especially if certain frozen items are eligible but other canned items are ineligible based on sugar or salt content.

It is also possible to base program restrictions on criteria already set by an existing nutrition program. For example, the Healthy Incentives Pilot (HIP) allowed participants to earn incentives by purchasing foods included in the WIC cash value voucher guidelines, i.e., fresh, canned, dried, and frozen fruits and vegetables.[59, vii] This approach has the advantage of leveraging an existing food package and reducing confusion for WIC participants and WIC vendors. However, this set of restrictions could be difficult to train or enforce if vendors are not already part of WIC and familiar with the particular restrictions.

Similarly, a program may leverage SNAP purchasing restrictions, which allow the purchase of most food items found in stores but leave out hot foods, foods to be eaten in-store, alcohol, tobacco, and non-food items.[60] Two of the programs interviewed utilize this option: Kansas City Beans&Greens and Market Bucks; both do so at farmers' markets. This option leverages existing vendor and beneficiary knowledge and reduces confusion for SNAP participants, but it includes some unhealthy foods among the allowed items.

Alternatively, administrators may select eligible food items based on certain nutritional criteria and dietary guidelines. In the HealthyFood Program, a panel of nutritionists, physicians, and behavioral scientists conducted a systematic review to determine eligible foods. Their list is continually updated based on new products and research. Printed catalogues are made available, and the list is synced with two supermarket chain computer systems.[61]

As a less restrictive option, program benefits may be used to buy any foods available at a farmers' market. Of the programs surveyed for this analysis, Greenbucks and Market Match in New Orleans both allowed benefits to be spent on anything at participating farmers' markets. This strategy offers an easy way to prevent item-level confusion and support client choice and dignity. It also allows a program to incorporate prepared foods. However, this option only works at farmers' markets and may include some unhealthy foods among the allowed items.

Theoretically, program administrators could choose to allow beneficiaries to buy any type of food with their benefits, both at farmers' markets and at grocery stores. However, determining exactly what counts as "food" would take time and could prove challenging.

[vii] HIP made a small number of modifications to the WIC purchasing restrictions based on information from the National Health and Nutrition Examination Survey.

The following table summarizes the major purchasing restriction options available when designing a healthy food purchasing supplement program.

Figure 10: Purchasing Restriction Options

Purchasing Restriction Options		
Fruits and Vegetables Only		
Option	**What Works**	**Challenges**
Fresh Fruits and Vegetables Incorporates fresh items only *Health Bucks*	• Targets nutrient-dense foods • Simplifies identification of eligible foods	• Limits beneficiary choice • Restricts the type of vendors that will receive revenue from benefits
Fresh, Frozen, and/or Canned Fruits and Vegetables Allows some processed options in addition to fresh fruits and vegetables *UCSF Fruit and Vegetable Voucher Pilot**	• Allows for broader beneficiary choice • Increases likelihood that smaller stores will already stock product	• Can complicate identification of eligible foods • May include less healthy items (e.g. French fries)
WIC Fruit and Vegetable Restrictions Allows for canned, frozen, and dried fruits and vegetables without added sugars, fats, or oils (excluding white potatoes) *Healthy Incentives Pilot*	• Balances broad food choice and nutrient content • Leverages an existing food package, vendor network, and materials	• Requires intensive training for non-WIC vendors and beneficiaries
Inclusive of Other Foods		
Option	**What Works**	**Challenges**
Novel "Healthy Food" List Includes food items based on nutritional criteria and dietary guidelines *HealthyFood Program (South Africa)*	• Brings greater variety to food choices • Can be tailored to specific program needs	• Logistically challenging to set up • Requires technology to maintain and update list
SNAP Restrictions Allows for most food items, but excludes hot foods, alcohol, tobacco, and foods to be eaten in-store *Kansas City Beans&Greens*	• Allows for broad food choice for recipients • Leverages an existing food package, vendor network, and materials	• Includes less healthy foods • Requires some training for non-SNAP vendors and beneficiaries
All Farmers' Market Items Allows for the purchase of any food items at markets, including prepared foods *Market Match (New Orleans)*	• Simplifies identification of eligible foods • Supports farmers and local food vendors	• Includes less healthy foods • Restricts vendor network to farmers' markets

*This program included frozen but not canned fruits and vegetables.

As a final note, programs may consider specific purchasing restrictions that extend beyond the strict item level. For example, some programs, notably Double Up Food Bucks, only allow benefits to be used to purchase fruits and vegetables grown in Michigan. Double Up Food Bucks imposed this restriction as a way to support the local economy and local small to mid-sized farmers. 92% of farmers have reported selling more fruits and vegetables as result of the program.[62] This type of restriction would likely generate support among local farmers, help to build a broad base of support for the program in rural and small business communities, and perhaps make the program more palatable to some elected officials. California has a significant number of local farms, some of which are small family farms; however, many others are large commercial farms. Thus, in San Francisco, a healthy food purchasing supplement program might also consider limiting benefit use to produce grown by certain types of farmers, depending on the type of producer that administrators want to support.

4.4 Benefit Distribution and Use

The program design decisions discussed in the previous sections can be made in relative isolation, with little or no impact on other design features. Yet the core of any healthy food purchasing supplement program—how beneficiaries receive and use benefits—is actually an intersection of three related decisions: how beneficiaries acquire benefits, how the benefits are delivered to beneficiaries, and how and where the benefits can be redeemed. These decisions are, in essence, questions of benefit structure, vendor networks, and redemption technology.

Technology limitations link these three decisions, and thus program administrators do not have complete freedom to "mix and match." In general, administrators may have flexibility in determining two of the three design aspects (e.g., how benefits accrue to beneficiaries and where they can be used), which will then lead to a clear and sometimes forced decision for the last aspect (in this example, how the benefit is delivered to beneficiaries).

The analysis below highlights this interconnectedness and summarizes the major tradeoffs between such decisions. Overall, administrators must weigh the capacity of a given benefit structure to incentivize consumption of target foods and the degree of desired technological innovation against access to a wide vendor network and ease of implementation. The following table summarizes the major options within three broad design elements.

Figure 11: Benefit Design Options, Benefit Delivery Options, and Vendor Options

Benefit Design Options	Benefit Delivery Options	Vendor Network Options
Cash-Value Credit Credits are given to eligible participants with a specific cash value redeemable only for targeted foods. Benefit receipt may be contingent on participation in a nutrition class, clinic appointments, etc.	**Voucher** Paper or plastic with a discrete face value. Some programs print vouchers as checks and use tracking technologies such as barcodes and QR codes. No change is given if the full amount is not redeemed.	**Supermarkets** **Small Grocery and Corner Stores** **Farmers' Markets** **WIC-Certified Vendors** **CalFresh-Certified Vendors**
Point-of-Sale Matching Incentive Benefits are earned as a proportion of money spent up-front on targeted food items. For example, if participants spend $10 on the targeted foods, they immediately receive a $10 matching benefit that can be restricted or unrestricted to the healthy food items.	**Token** Plastic, wood, or metal object with discrete face value. Used widely at farmers' markets. No change is given if the full amount is not redeemed.	
Delayed Rebate Incentive Instead of an immediately available matching incentive, a rebate can be issued after a purchase transaction based on the amount of eligible food items purchased. Rebates are typically mailed to participants.	**Gift Card** Non-reloadable electronic voucher with a discrete value. Can be used incrementally until full value is redeemed. Can be generic (e.g. Visa gift card) or specific to a particular store.	
	Debit Card Acts as an electronic voucher but is remotely reloadable as benefits accrue or are distributed. Would work at all food retail locations with electronic payment technology.	

4.4.1 How do beneficiaries acquire benefits?

Model healthy food purchasing supplement programs allow beneficiaries to acquire benefits in three main ways: through cash-value credits, through point-of-sale matching incentives, or through rebates. These options determine the benefit structure of a program. With cash-value credits, a certain amount of funds is allocated to designated participants either with or without additional requirements. The Greenbucks program, for example, simply dispersed credits through community-based organizations to low-income populations. On the other hand, many health-focused programs like VeggieRx require participation in nutrition or health programming. The majority of interviewed programs use a matching incentive structure, in which a proportion of participant spending on target foods is matched with funds available for immediate use. Lastly, a few programs (notably, HealthyFood and Independent Health) use a delayed rebate structure, in which funds are given to participants some time after they spend money on eligible food items.

Among these three options, matching funds are the most effective in incentivizing consumption of target foods because participants are first required to spend their own money on eligible items, yet benefits are earned during the transaction and can be used immediately. Cash-value credits work best for a broad population because anyone can receive them. In comparison, matching programs often require beneficiaries to spend some form of government assistance to earn the match, and such programs assume that beneficiaries have sufficient existing benefits or resources to spend up-front.

To date, cash-value credit systems have been implemented successfully across a variety of vendor types. Matching incentives have only been implemented on a large scale at farmers' markets. Delayed rebate programs demonstrate the highest reliance on technology and have only been implemented at large supermarket chains. Additionally, matching incentives and rebates are dependent on beneficiary spending patterns and therefore likely to require more administrative effort than a cash-value credit system.

4.4.2 How are benefits delivered to beneficiaries?

Model programs employ four major technological mechanisms to deliver benefits to participants. Technology then also determines the nature of redemption transactions at vendors, discussed later in this section. Vouchers and tokens are the benefit technology used most commonly by current programs, especially at farmers' markets. Both carry a discrete value and can be used like cash, though beneficiaries cannot receive change if they do not use the entire benefit amount. Gift cards also carry a discrete benefit value and cannot be reloaded; however, they can be used incrementally, enabling beneficiaries to redeem their full benefit amount across multiple purchases. Double Up Food Bucks is currently utilizing gift cards in a grocery store matching incentive pilot with SNAP recipients. Lastly, program administrators can consider upgrading existing EBT technology or creating a new debit card system as part of a healthy food purchasing supplement program. Such technologically advanced options have been implemented on a limited scale by programs like the Healthy Incentives Pilot (HIP).

Technology choices involve a number of tradeoffs. Vouchers and tokens are cost-effective to implement and scalable to multiple populations, but they are labor-intensive in terms of redemption tracking because so little is automated. Incremental technology improvements such as voucher barcoding can ease the administrative burden, but on the whole, tokens and vouchers show limited economies of scale in terms of back-end effort. Upgrading EBT technology or implementing a new debit card system would be very expensive initially but cost-effective in the long run, as these systems would allow for detailed and automated redemption tracking. However, EBT technology restricts the beneficiary population to SNAP recipients, and a technology-intensive benefit delivery mechanism may not work at vendor sites with limited technology access, e.g., small grocery stores.

4.4.3 Where can beneficiaries use benefits?

Another key consideration is the network of vendors where beneficiaries can use their benefits to purchase target foods. Most possible vendors fall into three categories: large, commercial supermarkets; small, independent grocery stores; and farmers' markets. Cutting across these three categories are broad networks of WIC- and CalFresh-certified vendors. Most interviewed programs currently operate at farmers' markets only, but a few programs, including Double Up Food Bucks and SNAP+, are beginning to expand to grocery stores through pilot programs. Other programs have built off WIC and SNAP vendor networks: the UCSF Pilot worked with WIC vendors, and the Healthy Incentives Pilot (HIP) incorporated a set of EBT-certified vendors.

Vendor network options vary in terms of geographic accessibility, availability of healthy foods, and existing payment infrastructure. Farmers' markets offer the largest variety of local, healthy foods, but they have limited locations and hours, often lack payment technology, and may not be culturally appropriate for all beneficiaries. Supermarkets have robust payment technology and locations across the city, but they carry a smaller selection of local, healthy foods than farmers' markets. In some cases, they may not offer culturally appropriate choices for all populations. Independent grocery stores can offer more culturally appropriate foods and may be more accessible to certain populations, but their payment technology and administrative capacity are often limited, and they may not stock a wide variety of locally grown, healthy foods.

The decision about target vendor networks is an important one, and it may impact the feasibility of various design options for benefit structure and redemption technology. The existing payment structure at target vendors plays a key role in determining the appropriate benefit delivery technology. As one example, the participation of supermarkets or grocery stores may complicate the use of a low-tech matching incentive because the enforcement of purchasing restrictions would be dependent on cashier training and discretion.

In summary, decisions regarding benefit structure, technology, and vendor networks are interdependent. Administrators may have a full range of options to choose from when deciding one or two of these issues, but may then be "forced" into a certain option for the third category. In designing this core of the healthy food purchasing supplement program, administrators may wish to prioritize certain design elements based on their goals and preferences in terms of technology cost, vendor access, and incentive structure. With this decision method, administrators can ensure the program is well designed to meet their needs and goals.

4.5 Administration

Finally, a central component of any program is its administrator, a role that a number of entities can play. Generally, administrators are responsible for raising money, delivering benefits, marketing the program to potential vendors and beneficiaries, evaluating the program, and tracking participation. This section reviews four types of organizations that administer programs around the country. Importantly, a number of programs are run by multiple organizations in partnership, though one organization typically takes on a central coordinating role.

Three of the 17 programs surveyed are run by local government agencies; HIP, SNAP+, and Health Bucks fall into this category. Both SNAP+ and Health Bucks contract with industry groups to assist in the administration of the program.

Most of the surveyed programs are run, at least in part, by a community organization. These community organizations range from foundations to social service organizations to organizations devoted solely to coordinating a healthy food purchasing supplement program. For example, Kansas City Beans&Greens is currently run by a local health foundation, which funds several health-related initiatives. Double Up Food Bucks is run by Fair Food Network, which works on a variety of healthy food access initiatives. In California, local farmers' markets partner with the Ecology Center, a non-profit, to run Market Match at numerous markets.

Several programs are run exclusively or partly by industry groups like grocers' or farmers' market associations. For example, SNAP+ partnered with a grocery store association to recruit vendors and provide central administrative support. Locally, the Ecology Center, in partnership with local organizations through the Market Match program, manages several farmers' markets. A pilot in Florida through the Wholesome Wave Innovation Lab is being administered by the Florida Organic Growers Association.

There are also several programs run by either health plans or health providers. Often such programs are administered in partnership with community organizations and have a strong focus on health outcomes. In the US, VeggieRx, FVRx, and Market Bucks use this model. Internationally, a large health insurer administers the HealthyFood Program in South Africa.

Three key aspects of administration should be considered when selecting a lead agency to run a healthy food purchasing supplement program:

- Potential to support flexibility in overall program design and operation;
- Ease of administrative access to food-insecure populations; and

- Accountability and transparency in evaluation and reporting requirements.

The following table summarizes the four observed models of administration and evaluates them along the three aspects described above.

Figure 12: Administration Options

Administrative Organization			
Lead Organization	Flexibility in Program Design and Operation	Access to Food Insecure Populations	Accountability and Transparency
Government Agency Several existing programs are administered by government agencies, often local health departments. *Health Bucks:* *NYC Department of Health and Mental Hygiene*	**LOW**: Must adhere to broader government regulations regarding contracting, etc.; subject to political feasibility challenges	**HIGH**: Possesses access to lists of possible beneficiaries (if recipients of other government programs)	**HIGH**: Bound by requirements for documentation, availability of data, etc.
Community Organization Most programs surveyed are run by a foundation or social service organization. *Double Up Food Bucks:* *Fair Food Network*	**HIGH:** Can pursue a number of program designs and seek funding from a variety of sources	**MODERATE TO HIGH:** May have access to beneficiaries; based on the mission and scope of the organization	**LOW**: May have few reporting requirements; depends on specific organization and funding sources
Industry Group Private-sector organizations and coalitions such as farmers' market or growers' associations may administer a program. *Double Value Coupon Program:* *Florida Organic Growers Assoc.*	**MODERATE:** Flexible in beneficiary targeting and benefit structure, but may be restricted to a specific vendor network and technology	**LOW:** Little existing access to populations; would need to partner with agencies or organizations for outreach	**LOW**: May not have incentive to collect and share information about performance
Health Insurer or Medical Provider Health plans or community health clinics may administer programs, especially those with a focus on health outcomes. *Market Bucks:* *Blue Cross Blue Shield of Minnesota*	**MODERATE:** Can accommodate a number of program designs, though a focus on health outcomes is likely preferred	**MODERATE**: Can leverage strong ties to existing clientele at clinics or hospitals, but has little access to other vulnerable populations	**LOW**: Not bound by any requirements to share or publish program information

4.6 Summary

Creating a healthy food purchasing supplement program entails making decisions across a number of key design features. This section drew on local program interviews and existing literature to compile and analyze the design options most relevant to San Francisco.

In Section 6, the design elements discussed in this section will be integrated to construct a set of recommended program packages for San Francisco. Cost plays a critical role in determining program feasibility, however, and no program recommendations can be made without first exploring cost structures for existing programs. To fill this gap, the next section details the benefit costs and administrative costs of current programs and analyzes the key drivers of cost for various design options.

5. Program Costs and Funding Sources

Cost is a critical consideration in designing a healthy food purchasing supplement program. Before integrated program packages can be recommended for implementation in San Francisco, it is necessary to consider the likely costs that would be incurred.

The analysis below identifies the major cost drivers for a wide array of programs and collects available data from existing programs to provide a reasonable range of estimates. This section is not meant to provide a detailed, itemized cost analysis for a comprehensive program design. Such analysis is out of the scope of this report, and it cannot be conducted until consensus is achieved around specific program design features. Still, this section establishes a framework for identifying costs once program design becomes clear.

The section concludes with a discussion of funding sources that could be used to cover the costs of a healthy food purchasing supplement program in San Francisco.

5.1 Benefit Cost

The clearest driver of cost for any healthy food purchasing supplement program is the cost of the benefits it provides to participants. The benefit costs incurred by an array of model programs is shown below.

Figure 13: Annual Benefit Cost for Sample Programs[viii]

Program	Annual Participants	Benefit Design	Annual Benefit Cost
DVCP (all)[63, 64]	39,000 individuals	Varies by program (point-of-sale matching incentive)	$884,800
Double Up Food Bucks[65]	90,000 visits (not unique)	$1 for $1 match; $20 cap per market day	$750,000+
HIP[66, viii]	7,500 households	$0.30 match per $1 spent; $60 cap per month	$325,000
Kansas City Beans&Greens[67]	26,000 unique individuals since 2010	$1 for $1 match; weekly cap of $25 for SNAP and $30 for seniors	$175,000
FVRx[68, 69]	1,570 individuals	$1 per person per day for 4-6 months	$121,000
VeggieRx[70]	525 individuals	$1 per person per day for 16 weeks	$59,000
Market Match at PCFMA[71]	2,500 individuals	$5 match per $10 spent per market day	$50,000

As demonstrated above, benefit cost varies widely across existing programs. The following program considerations represent key drivers of benefit cost.

[viii] These figures are approximate and represent the most recent data available for each program.

- **Number of participants.** The beneficiary population served is the strongest driver of benefit cost. The frequency with which an individual or household is expected to take advantage of benefits also plays a major role in determining cost. In the Bay Area, CalFresh recipients visited Market Match locations an average of 2.5 times in 2013.
- **Benefit amount.** Considerable variety is observed across current programs. Market incentives typically offer a $1 for $1 or $1 for $2 match. Health-based programs provide a $1 benefit per person per day. Most benefits are capped at a certain amount per day or per week. For example, Kansas City Beans&Greens imposes a weekly matching cap of $25 for SNAP participants. Health Bucks is the only program interviewed with no cap: it offers unlimited $2 for $5 matching on SNAP purchases.
- **Redemption rate.** Another important consideration is the expected percentage of benefits redeemed. This can vary widely based on program design. For instance, 85% of Health Bucks coupons were redeemed in 2013, but incentives earned in the HIP program averaged only $3.64 per month out of a $60 maximum.[63]
- **Benefit structure.** Up-front incentive funds offer greater predictability in benefit cost because they do not depend on participant spending. Matching or rebate incentives vary based on participant purchasing, and programs using these benefit structures must plan for greater variability in benefit cost.
- **Growth in demand over time.** In particular, market-based matching incentives have been shown to increase participant spending at farmers' markets over time. For example, combined spending of federal nutrition benefits and Double Value Coupon Program (DVCP) incentives grew from $331,000 in 2009 to $2.4 million in 2012.[64] Locally, CalFresh redemptions at San Francisco farmers' markets increased by 60% between 2011 and 2013.[65] Programs must anticipate increases in demand for benefits and budget appropriately.

5.2 Implementation Cost

More than any other cost type, implementation cost depends strongly on the design of the healthy food purchasing supplement program. At one end of the spectrum, programs like Greenbucks can be implemented at negligible cost by relying on existing infrastructure and using low-tech benefit delivery mechanisms. At the other end, programs that involve extensive technology upgrades—most notably, HIP—have incurred implementation costs of several million dollars.[ix]

The following program considerations represent key drivers of benefit cost.

- **Investment in technology.** As stated above, technology is the largest determinant of implementation costs. The following program examples highlight the implementation cost of various technologies.
  - Voucher: Health Bucks estimates that printing 500,000 vouchers costs around $20,000.[66] Additionally, VeggieRx invested approximately $2,000 to develop the technology to design, print, and scan QR codes on its vouchers.[67]
  - Token: Based on the experience of Kansas City Beans&Greens and PCFMA Market Match, tokens are significantly more expensive than vouchers. Creating 10,000 or 20,000 tokens with market logos can cost several thousand dollars, and investing in token counting machines can add to this cost.
  - EBT terminal: Farmers' markets must invest in EBT terminals to accept SNAP transactions. Based on the experience of Market Bucks, EBT terminals cost approximately $1,000 and last 3-5 years. EBT transaction fees total $50-$100 per month.[68]

[ix] HIP implementation costs are estimated at under $5M; official figures to appear in HIP Final Report.

- Large-scale software modification: To modify SNAP technology, HIP spent several million dollars on technology consultants and vendor system upgrades.[69]

- **Participant outreach.** Informing participants is critical to the success of a new healthy food purchasing supplement. New programs must spend money to develop mailing materials and must pay staff to hold training sessions. For a new type of program, the investment in training can be substantial. For instance, HIP offered 145 trainings before launching its program.[70]
- **Vendor recruitment and training.** Programs focused on farmers' markets have generally experienced few difficulties with recruitment. However, the process has proven more challenging for programs targeting supermarkets and small grocery stores. The UCSF Pilot required significant staff time to recruit small retailers door-to-door. At a larger scale, the HIP program demonstrated the difficulties of recruiting retailers. Only 20% of eligible stores ultimately participated in the program, and independent retailers required an average of five in-person visits to commit to HIP—significantly more than expected.[71] Programs targeting retail locations must allocate staff time to vendor recruitment and subsequent training.
- **Supplementary program design and partnership building**. Food benefit programs offering supplemental health or nutrition programming must factor in additional funds for developing classes and building partnerships with any affiliated organizations. For example, the VeggieRx program could not be implemented until its administrator, Fresh Approach, established relationships with community-based health clinics and developed nutrition education classes for participants.

5.3 Ongoing Administrative Cost

A final component of program cost is the ongoing expense required to support program operations. As with implementation cost, the magnitude of ongoing cost varies widely based on program design. A useful way to evaluate ongoing administrative cost is to compare it with the benefit cost for a given program. Information gathered through program interviews indicates that technology-intensive programs have high benefit-to-administrative cost ratios when operational. Small-scale, low-technology programs may also demonstrate benefit costs in excess of administrative costs. Market-based matching programs, including Market Match in the Bay Area, often incur administrative costs on par with their annual benefit costs. Health-focused programs that offer nutrition programming spend more on administration and operations than on benefits. Several examples of benefit-to-administrative cost ratios are provided in the following table.

Figure 14: Benefit-to-Administrative Cost Ratios for Sample Programs[x]

Program	Annual Benefit Cost	Annual Administrative Cost	Ratio
HIP	$325,000	"Minimal"[xi]	3.0+
SNAP+	$15,000	$5,000 (did not cover full administrative costs)	<3.0
Greenbucks	$35,000	$13,000	2.7
Double Up Food Bucks	$750,000+	$750,000	1.0
Kansas City Beans&Greens	$175,000	$175,000	1.0
Market Match at PCFMA	$50,000	$50,000 - $60,000	0.8 – 1.0
VeggieRx	$59,000	$140,000	0.4

The following program considerations represent key drivers of ongoing cost.

- **Benefit administration**. A major source of ongoing cost is the administration of benefits, the tracking of redemptions, and the handling of reimbursements. Depending on the technology adopted by each program, the costs of benefit administration may be low relative to benefit costs (e.g., HIP), or they may represent a significant fraction of all spending (e.g., PCFMA Market Match). The Ecology Center estimates that the rate of return on administrative investments to the run Market Match programs in California ranges from 60-80 cents for every administrative dollar at smaller markets to $3 for every administrative dollar at large markets.[72] Programs have several options for covering the costs of benefit administration. Many use paid staff for extra market time and hire full-time central administrators. Others contract with external parties and pay a flat fee for certain tasks: for example, Health Bucks contracts with the Farmers' Market Federation of New York and pays 25 cents for each $2 benefit to cover the costs of vendor reimbursement. Smaller programs may rely more extensively on existing staff and unpaid volunteers to cover benefit administration costs, though the long-term sustainability of this approach is limited.
- **Participant support and outreach.** No program's beneficiary population is static. Beyond initial participant outreach, programs must dedicate ongoing time and resources to supporting their participants, both existing and new. A program may choose to dedicate internal staff time to ongoing participant support, or it may create outreach materials and partner with community-based organizations for participant support. Healthy food purchasing supplement programs that adopt innovative designs may also operate a telephone hotline, and email address, and web materials to support and educate participants.
- **Vendor maintenance.** Healthy food purchasing supplement programs must invest in maintaining relationships with the vendors they recruit. The HIP program staff conducted monthly conference calls with supermarkets and regularly visited small grocery stores in person. In California, Market Match holds regular calls with participating

[x] All cost estimates in this section are taken from program interviews and must be considered approximate.

farmers' markets, and it also hosts a biannual conference for them. Program resources may also be needed for ongoing vendor and cashier training.

- **Program or class staffing.** Program models that include nutrition or health-focused courses must budget sufficient funds for their development and operations. The VeggieRx program, which runs educational programming staffed by Fresh Approach employees, estimates that each class—including preparations and follow-up—requires a total of 8-10 hours of work from each of two or three staff members. Further, FVRx programs are significantly more expensive to run than VeggieRx because they require time with physicians or medical providers.
- **Evaluation.** The final driver of ongoing cost is program evaluation and reporting. For innovative pilot programs, this cost can be very high. The HIP project allocated over $10 million for comprehensive external evaluation.[73] For more established programs, evaluation is often done internally at a much lower cost. Still, evaluation expenses may represent a substantial portion of all spending. The PCFMA Market Match program, which distributed $50,000 in benefits in 2013, spends $15,000 – $20,000 annually on internal data analysis, evaluation, and reporting.[74]

5.4 Possible Funding Sources

A number of funding sources can be used to cover the costs described above. Most programs around the country utilize a mix of funding sources; some raise money to support the program in general, whereas others use different funding streams separately for benefit and operating costs. As one example, the PCFMA Market Match program uses Specialty Crop Block Grant funding for its administrative costs but relies on philanthropic efforts and donations to cover the bulk of its benefit costs.

The following information, drawn from program interviews, identifies potential sources of funding for San Francisco to consider as it designs its program.

5.4.1 Federal and State Funding Sources

- **Farm Bill.** The 2014 Farm Bill included $100 million for grants to healthy food purchasing supplement programs at farmers' markets. It also included SNAP Innovation funds, which could be leveraged for creative program designs.[75]
- **California Department of Food and Agriculture.** Many of the surveyed programs received federal Specialty Crop Block Grant funding through their respective state agriculture departments, including Fresh Approach and Market Match in California.
- **MarketLink.** A recent USDA initiative can cover the cost of a Mobile Market+ device for farmers' markets that do not currently accept EBT but wish to upgrade. Even if the market as a whole already accepts EBT, individual farmers may qualify for MarketLink assistance if they want to process payments as individual businesses.

5.4.2 Local Funding Sources

- **Soda tax**. San Francisco is currently considering a soda tax, which could generate up to $30 million annually, with 25% going to the Department of Health.[76] Some of this additional revenue could be used to support a healthy food purchasing supplement program.
- **General fund.** The city could also choose to fund its program using general fund money.

5.4.3 Private Funding Sources

- **Foundations.** Numerous existing programs draw on financial support from local foundations. Local foundations that could serve as sources of funding include the Robert Wood Johnson Foundation, the California Endowment, the Kaiser Family Foundation, and the San Francisco Foundation.
- **Health plans.** Several existing programs are funded primarily through health insurers, including HealthyFood in South Africa and Market Bucks in Minnesota, which Blue Cross Blue Shield funds with tobacco settlement money.
- **Hospital community benefit funds.** San Francisco can explore the possibility of leveraging community benefit funding offered by Kaiser, Sutter, and other hospitals.
- **Vendors.** San Francisco could leverage vendor partnerships—particularly with large supermarket chains—to raise funds. For example, Market Match asks new farmers' markets in California to raise a certain amount of money for the program.
- **Corporations.** The city could approach private companies and business donors, including those in Silicon Valley, to support its program.
- **Individual donors.** Finally, San Francisco could create an individual donation mechanism to allow contributions toward its healthy food purchasing supplement program.

5.5 Summary

The major components of cost in healthy food purchasing supplement programs are benefit cost, implementation cost, and ongoing administrative cost. For each of these components, the discussion above has identified major cost drivers and provided example expenses from current programs. On the whole, costs vary widely by location and program design. San Francisco will need to project specific cost estimates for any comprehensive program design packages selected. Still, the city can draw on the analysis above to establish a framework for considering program expenditures and identifying potential sources of funding.

6. Program Design Recommendations for San Francisco

Integrating the analysis of the program design options and costs covered in Sections 4 and 5 with the realities of San Francisco's food security landscape, this section presents options for complete healthy food purchasing supplement program designs best suited for San Francisco. Two comprehensive program design options are presented as recommended alternatives.

6.1 Key Factors to Consider in the Design of a Healthy Food Purchasing Supplement Program

The two recommended program packages discussed later in this section were designed to meet a number of key criteria. These criteria were selected to be representative of the most important factors to consider when designing and implementing a healthy food purchasing supplement program, drawn from the experience of existing programs in operation across the United States. The criteria reflect needs expressed by local food security stakeholders, as well as program evaluation reports. This section provides an overview of the significance of each factor. However, the discussion does not assess the relative importance of various criteria, as this determination generally reflects fluid budgetary and political constraints. San Francisco may choose to give priority to certain criteria over others in order to best match the city's current goals.

1. Effectiveness in Reaching Participants: A key aspect of any healthy food purchasing supplement program is its ability to reach food-insecure populations. Evaluation of program effectiveness in reaching participants encompasses two aspects: (a) the potential for the program to be scalable across multiple populations, and (b) the potential for the program to target the most vulnerable food-insecure populations.

a. Scalability across multiple populations: The program offers options for targeting existing nutrition benefit recipients as well as creative approaches for reaching a wider array of food-insecure individuals.

b. Targeting at vulnerable populations: The program offers an opportunity for narrow targeting of the most vulnerable food-insecure populations.

2. Ease of Implementation: Implementing a new program takes time and effort. Program designs that rely on existing infrastructure and/or low-tech benefit delivery mechanisms offer ease of implementation over programs that must create new infrastructure or employ high-tech benefit delivery mechanisms. Further, program design options vary in terms of vendor outreach, recruitment, and training requirements.

a. Ease of Implementation: The program does not rely on design components that are prohibitively difficult to implement.

3. Cost-Effectiveness: Cost is a critical consideration in designing a healthy food purchasing supplement program. Program costs typically involve a tradeoff between initial implementation costs and ongoing administrative costs. Information gathered through program interviews indicates that technology-intensive programs, which involve substantial implementation costs, have high benefit-to-administrative cost ratios while operational. In contrast, market based matching programs, which can be implemented at negligible cost by relying on existing infrastructure and using low-tech benefit delivery mechanisms, may incur administrative costs on par with their annual benefit costs.

a. Operational Cost Effectiveness: The program offers a high benefit-to-cost ratio, where costs include both implementation costs and projected ongoing administrative costs.

4. User-Friendliness: An effective healthy food purchasing supplement program must be designed with the recipient of the benefit in mind. This encompasses concerns of access and ease of use.

a. Wide access: The program is accessible to beneficiaries, taking benefit delivery mechanism and redemption locations into account.

b. Ease of use: The program offers a benefit that is convenient and easy for participants to use and understand. The program ensures beneficiary confidentiality and dignity.

5. Effectiveness in Incentivizing Consumption of Healthy Foods: The program is designed to change relative prices or increase financial resources in a way that makes targeted foods more affordable and appealing to beneficiaries.

6.2 Recommended Program Packages

At a high level, the authors recommend a wide-reaching healthy food purchasing supplement program that may be implemented in two stages, the first prioritizing ease of implementation and the second emphasizing scalability. Recommendation 1 makes use of existing infrastructure to facilitate implementation. Recommendation 2 focuses on scalability, expanding distribution of benefits as well as the vendor network. While Recommendation 1 and Recommendation 2 are intended to be complementary, each recommendation may also be implemented as a stand-alone option if budget or political constraints limit the ability of the city to move forward with both elements.

It is important to note that these recommendations do not address every possible design question that may emerge. Rather, the intention of the discussion below is to provide a sufficient level of detail from which to begin the program planning process.

6.2.1 Recommendation 1: Expanded Market Match Program

Focused on ease of implementation, Recommendation 1 centers around a potential partnership between San Francisco and the existing healthy food purchasing supplement program Market Match, which is currently in operation at a subset of San Francisco farmers' markets. As discussed in Section 3, Market Match is a statewide healthy food purchasing supplement program that matches a customer's federal nutrition benefits at farmers' markets. Locally, the Ecology Center administers the program in partnership with the Pacific Coast Farmers' Market Association (PCFMA), the Agricultural Institute of Marin, and the Mission Community Market. CalFresh beneficiaries are eligible receive an extra $5 when they spend at least $10 on their CalFresh cards at certain markets.[xi] The City of San Francisco could approach Market Match administrators to form a partnership in order to facilitate a two-fold expansion of existing programming:

(1) Expand programing to all San Francisco farmers' markets on a year-round basis. Currently, Market Match is only available at a subset of San Francisco farmers' markets, many of which have relatively low volumes of EBT transactions. In addition, the PCFMA Market Match program only offers incentives during the summer months.[77, 78] The City of San Francisco could work with Market Match to expand the program to all farmers' markets in San Francisco, notably the Heart of City farmers' market, which accounts for nearly 70% of all EBT transactions at San Francisco farmers' markets.[79] Expanding Market Match to all markets would significantly increase the reach of the

[xi] By 2015, Market Match and PCFMA are planning to change the structure of the match to $1 for $1. The city could also support this scale up.

program. Additionally, as many San Francisco farmers' markets operate on a year-round basis, the healthy food purchasing supplement program should be offered year-round to minimize participant confusion.

(2) *Expand match beyond CalFresh to populations receiving any form of government assistance, including WIC and SSI.* The reach of Market Match may also be extended by expanding the program to populations beyond CalFresh. After an annual registration process with proof of eligibility, participants could bring a minimum of $10 in receipts to the central market booth and receive $5 in matching tokens. The tokens could be spent the same market day or saved for the beneficiaries' next market visit. If desired, higher matching rates may be explored for non-CalFresh populations.

A summary of key program design components is provided below.

Figure 15: Summary of Recommendation 1 Program Design Components

- **Beneficiaries:** Any means-tested government assistance program with simple proof of eligibility (e.g., WIC, SSI, SFMNP, and Medi-Cal)
- **Benefit Design:**
  - **Structure:** Point-of-sale matching incentive
  - **Amount:** $5 for $10 match; possible to offer higher rate for non-CalFresh populations
- **Purchasing Restrictions:** Fresh fruits and vegetables
- **Vendors:** Farmers' markets
- **Technology:** Existing farmers' market token infrastructure and EBT terminals
- **Administration:** Farmers' market association and non-profits (e.g., Fresh Approach, Roots of Change, the Ecology Center); potential for nominal government partnership

Who is Eligible for the Benefit: Any Recipient of Government Assistance

CalFresh beneficiaries can easily identify themselves as eligible to receive the matching incentive by paying with an EBT card at the central market booth. In order to serve populations beyond CalFresh, an expanded Market Match program would include an annual registration process for beneficiaries receiving other forms of government assistance. During their first visit to a farmers' market, beneficiaries would present paper verification of their current eligibility status, and their information would be entered into a market database. If beneficiaries wanted to shop at multiple markets, they would have to register multiple times, once at each market. Although it is not currently possible to prevent beneficiaries from receiving the matching incentive at multiple markets—this would require real-time communication across markets—the requirement that beneficiaries register at each market separately would serve as a mechanism to discourage abuse of matching incentives.

How the Benefit is Delivered: Token System at Farmers' Markets

The matching benefit could be delivered via the existing token system at farmers' markets. Under the current Market Match program, participants who spend $10 or more in CalFresh benefits at a participating market receive a $5 match per market day. Market employees swipe EBT cards through a terminal at the central market booth and provide yellow tokens for the CalFresh funds (which can be used to purchase any SNAP-eligible items) along with green Market Match tokens (which may only be spent on fresh fruits and vegetables). Tokens are redeemed with individual farmers, who are reimbursed by market administrators at the end of the market day.

Non-CalFresh beneficiaries would make initial purchases with cash and then take their receipts to the central market booth to receive the matching incentive in the token currency. The tokens could be spent the same market day or saved for the beneficiaries' next visit. Los Angeles County Market Match already uses this model in order to serve SSI recipients.

What Foods Can Be Purchased: Fresh Fruits and Vegetables

Market Match currently uses a set of green tokens to provide its matching incentive that can only be spent on fruits and vegetables. This recommendation would preserve existing purchasing restrictions.

Where the Benefit Can Be Redeemed: Farmers' Markets

The matching benefit could only be redeemed at the market where beneficiaries receive the incentive. The matching incentive would be limited to one match per week per market.

Who Administers the Program: Farmers' Market Association and Non-profits, with Possible Government Partnership

Central market managers would manage annual eligibility verification and day-to-day matching and vendor reimbursement operations. Non-profits already involved in Market Match, such as Fresh Approach and the Ecology Center, could lend their expertise to program administration. The City of San Francisco could play a role in managing accounting, for example, by providing matching funding for markets up-front based on estimated volume and periodically reconciling if necessary.

In recognition of the fact that the limited hours and locations of farmers' markets may not be convenient for many food-insecure individuals, the authors propose a second program in addition to the expanded Market Match to allow for the redemption of a benefit at supermarkets and a limited number of grocery stores as well as farmers' markets.

6.2.2 Recommendation 2: Widely Redeemable Fruit and Vegetable Voucher

The City of San Francisco can be a pioneer in the expansion of healthy food purchasing supplement programs beyond the farmers' market. Currently, only three programs operating in the United States provide a benefit redeemable at grocery stores—Double Up Food Bucks: Grocery Store Pilot, SNAP+, and the Independent Health Nutrition Program—all of which are in the early stages of the piloting process. Furthermore, the proposed program would expand eligibility to include a broad set of low-income individuals. The table below provides a summary of the key design components of Recommendation 2, which are explained in further detail in the subsequent sections.

Figure 16: Summary of Recommendation 2 Program Design Components

- **Beneficiaries:** Any low-income individuals on government assistance or served by community-based organizations
- **Benefit Design:**
- **Structure:** Cash-value credit
- **Amount:** Can be any amount depending on program budget; $1 per person in a household per day is a suggested starting point
- **Purchasing Restrictions:** Fresh fruits and vegetables
- **Vendors:** Supermarket chain(s) initially, with expansion to independent grocery stores in order to achieve equal saturation across the city; farmers' markets
- **Technology:** Barcoded paper voucher
- **Administration:** Government agency and/or non-profits

Who is Eligible for the Benefit: Any Recipient of Government of Assistance or CBO Services

The intent of this recommendation is for vouchers to be distributed in two ways: (1) through city government agencies, and (2) through community-based organizations (CBOs). The government agencies would provide vouchers only to recipients of a means-tested government program (e.g., WIC, SSI, SFMNP, or Medi-Cal), whereas CBOs would be permitted to distribute vouchers to whomever they chose based on their own criteria. This broad eligibility would allow for the greatest reach into various food-insecure populations, particularly undocumented communities. CBOs would receive the vouchers directly from one or more city agencies, which would distribute a certain number of vouchers for free. CBOs could also be permitted to purchase additional vouchers for distribution. The Health Bucks program has successfully utilized this distribution model for several years. The authors believe that this design feature offers two distinct advantages. First, it allows the program to leverage funding from private sources. Second, it harnesses CBOs' unique knowledge about and access to specific populations. For these reasons, the model would be highly effective in reaching a broad set of food-insecure individuals.

How the Benefit is Delivered: Cash-Value Credit Voucher

Whereas benefits in Recommendation 1 are delivered as a matching incentive, benefits in this package are cash-value credits in the form of a paper voucher. This benefit design does not require beneficiaries to spend any of their own money up front.[xii]

As discussed in Section 4.2, there is no consensus on the "right" level of benefits per individual needed to achieve changes in consumption patterns. Since program funding is currently unknown, the authors feel this should be determined at a later date based on available funding. As a starting point, the government agencies and CBOs distributing benefits could consider providing enough vouchers to deliver a $1 benefit per person per day to all individuals in eligible households. This benefit amount is used by current programs, such as VeggieRx, because it is easy to understand and explain to participants.

[xii] Generally speaking, the authors believe that a matching incentive is the benefit structure most likely to result in greater consumption of targeted foods because beneficiaries must first put up their own funds to receive benefits. However, this structure is not practically feasible given the existing technology unless an electronic benefit card is used. This requires significant upgrades in infrastructure.

Each voucher, which might be distributed in person or via mail, could be used one at a time or accumulated to be used with other vouchers. If beneficiaries spent less than the full value of the voucher, no change would be given. This would ensure the maximum amount of the benefit went toward the targeted food purchase, with no leakage to other items. For this reason, the authors also recommend printing vouchers in small increments. Small denominations such as the $2 vouchers utilized by the Health Bucks program allow recipients the greatest flexibility in their shopping behavior.

In terms of delivery technology, paper vouchers offer the lowest initial cost and greatest ease of implementation amongst the various benefit delivery options because they are relatively inexpensive to produce and allow the program to be implemented quickly. While there are many advantages to a more technology-intensive approach such as an electronic benefit card (e.g., greater data collection capabilities), such options typically have higher initial costs and require more up-front work to set up the necessary infrastructure. Given that the program budget and level of political buy-in are currently unknown, the authors attach greater importance to low start-up costs and the possibility for a relatively quick rollout to allow the program to get off the ground and realize success in a short timeframe. The most feasible technology upgrade for Recommendation 2 would be the use of gift cards, as discussed briefly in Figure 17 below.

Figure 17: Gift Card

In reviewing the various benefit delivery mechanisms, it is clear that nutrition assistance programs and other "safety net" benefits are slowly transitioning toward technology-based delivery systems. However, there are limited options outside of an electronic benefit card, which is costly and time-intensive to set up. The authors believe that it may be possible to utilize a widely redeemable gift card that is somehow encrypted with the appropriate Product Look-Up (PLU) codes for the allowable food items in Recommendation 2. However more research is necessary to assess the feasibility of this option. Should this be possible, a gift card offers several advantages over the proposed paper voucher. First, a benefit loaded on a gift card could be spent in any increment, so beneficiaries would no longer be required to spend an exact amount per transaction. Second, a gift card may carry less stigma in comparison to a paper voucher. Third, if the gift card could be automatically coded with the intended purchasing restrictions, it would significantly reduce the amount of vendor and cashier training required. The major drawback is that this technology option is less adaptable to stores without computerized point-of-sale systems, meaning that many smaller grocery and corner stores would be unable to participate.

Because there is less automation with paper vouchers as opposed to some form of electronic technology, labor costs related to program operation (e.g., counting vouchers for vendor payment processing) may be higher, driving down the benefit-to-administrative cost ratio. A recommended way to reduce the labor involved in counting and tracking the paper vouchers is to utilize either scannable barcodes or QR codes to track where vouchers are given out and redeemed.

Arguably, paper vouchers allow for fraud since they are not uniquely tied to participants in the way that EBT cards are linked to CalFresh beneficiaries. While this is certainly a concern insofar as widespread fraud may jeopardize the existence of the program, fraud was not a major concern for any of the programs interviewed. Most administrators felt that the incidence of fraud was low and that in those relatively rare cases, the benefits were still frequently going to individuals who could be defined as at risk for food insecurity.

What Foods Can Be Purchased: Fresh Fruits and Vegetables

Broad food categories allow beneficiaries and vendors to identify eligible foods easily. For this reason, the authors recommend the voucher be redeemable for only fresh fruits and vegetables. This food category also arguably provides the greatest nutrient content and health benefits. At locations beyond farmers' markets, purchasing restrictions would likely need to be enforced through computerized cash register systems to minimize the training burden for cashiers.

Where the Benefit Can Be Redeemed: Supermarkets, Limited Grocery Stores, and Farmers' Markets

It is recommended that a voucher pilot program start with one or two supermarket chains with the greatest saturation across the city. The city could also consider working with a drug store chain, since stores are found in almost every neighborhood, and many locations now stock fresh produce. Starting with a large chain would facilitate implementation because purchasing restrictions could be enforced through existing point-of-sale technology. Also, because some vendor training would be required to process the benefit, starting with a chain would allow the program to leverage existing cashier training processes. In neighborhoods that are not served or underserved by the selected chains, independent grocery stores should be recruited early on to ensure equal access across San Francisco to participating vendors.

The paper voucher should also be directly redeemable with individual farmers and vendors at farmers' markets, as is the case with VeggieRx "prescriptions" today. This would require cooperation with market managers to reimburse farmers in the same way as with the matching tokens described under Recommendation 1. Allowing redemption of the cash-value credit vouchers at farmers' markets in addition to supermarkets maximizes participant choice and produces greater economic stimulus to the local economy by targeting farmers and small businesses.

Due to the existence of Market Match, the paper vouchers should not be eligible for additional matching incentives when used at farmers' markets. The decentralized distribution channels proposed for Recommendation 2 make tracking individual recipients difficult. While unlikely, it is possible that one individual could receive vouchers from multiple community-based organizations. A match at farmers' markets could incentivize individuals to actively seek vouchers from various distributing organizations and exacerbate overutilization. Not offering a match at farmer's markets would help limit this possibility.

If Recommendations 1 and 2 are implemented jointly, the authors recognize that allowing for both tokens and paper vouchers at farmers' markets is not an ideal set up, as this may cause some confusion among beneficiaries and vendors. Eventually, the city could streamline operations such that one type of benefit would be transferrable across the entire vendor network. Still, the use of paper vouchers at farmers' markets as part of Recommendation 2 offers the best design for a pilot implementation.

Who Administers the Program: Government Administrator, Nonprofit Partners

There are few limitations on who could administer the program in Recommendation 2, so theoretically, a government agency, non-profit, industry group, or health provider could play the lead role. Based on the unique experience of the San Francisco Food Security Task Force and its existing partnerships with community-based organizations, the authors suggest that the San Francisco Department of Public Health manage the program in partnership with the community group members of the Task Force.

6.3 Evaluation of Recommendations

Figure 18 on the following page summarizes the strengths and limitations of Recommendation 1 and Recommendation 2 in the context of the criteria established at the beginning of this section. Combining the recommendations results in the most comprehensive program that has the ability to reach the largest number of potential beneficiaries.

Figure 18: Evaluation of Recommendations

Evaluation of Recommended Packages		
Evaluative Criteria	Recommendation 1: Expanded Market Match Program	Recommendation 2: Widely Redeemable Fruit and Vegetable Voucher
Effectiveness in Reaching Participants Scalable across multiple populations; potential for targeting most vulnerable food-insecure populations	**LOW to MODERATE:** Easily scalable to a broad set of food-insecure populations. However, individuals with limited mobility or for whom farmers' markets are not convenient places to shop will be difficult to reach.	**HIGH:** Easily scalable to a broad set of food-insecure populations. More convenient redemption locations and hours of operation allow for greater opportunity to serve most food-insecure individuals.
Ease of Implementation Relies on existing infrastructure and/or low-tech benefit delivery mechanisms	**VERY HIGH:** Leverages existing program infrastructure and utilizes a low-tech benefit delivery mechanism.	**MODERATE to HIGH**: Requires some infrastructure creation, but utilizes a low-tech benefit delivery mechanism.
Cost-Effectiveness High benefit-to-administrative cost ratio	**MODERATE:** Low up-front implementation costs. Shares administrative burden with private partners. However, there are limited economies of scale due to low-tech benefit delivery mechanism.	**MODERATE:** Low up-front implementation costs. However, there are limited economies of scale due to low-tech benefit delivery mechanism.
User-Friendliness Wide access and ease of use for participants	**MODERATE:** Despite the fairly high saturation of farmers' markets across the city, the locations and hours of operation may not be convenient for some individuals. Requires registration for non-CalFresh participants.	**MODERATE to HIGH:** Benefits are widely redeemable at many locations and easily used in a manner similar to a coupon.
Effectiveness in Incentivizing Consumption of Healthy Foods Program makes targeted foods more affordable and appealing to beneficiaries	**HIGH:** The matching structure most effectively incentivizes the consumption of fruits and vegetables relative to other benefit design options. Farmers' markets offer greater variety of healthy foods than other food retail locations.	**MODERATE:** Cash-value credit is somewhat less effective at incentivizing consumption of healthy foods compared to a matching structure.

6.4 Next Steps

Food insecurity stems from a variety of reasons; no one program or service will entirely solve the problem. In particular, it is important to consider potential populations who stand to be most effectively served by healthy food purchasing supplement programs as compared to other food security policy interventions. An analysis of academic literature and existing healthy food purchasing supplement programs in other cities suggests that this type of program may be best for populations who are able to obtain an adequate number of calories, but have limited ability to purchase healthy food due to financial constraints. Individuals and families who routinely struggle with obtaining sufficient food, or populations with limited mobility who are unable to physically shop for and/or prepare their own food, may be better served by a different type of food security program.

To help address this challenge, San Francisco may develop supplemental program components in order to better serve populations with constraints that prevent participation in a widely scalable healthy food purchasing supplement program. Upon successful implementation of Recommendation 1 and Recommendation 2, the authors recommend considering the following:

- **Prepared Foods:** Prepared foods have their place in food assistance programs, particularly for individuals without full kitchens or for individuals who are unable to cook for other reasons (e.g. limited mobility). However, there are many challenges to implementing a healthy food purchasing supplement program that allows the purchase of prepared foods with the benefit. The biggest challenge is found in selecting an appropriate standard for determining which prepared foods may be included and deciding who has the authority to select the standard. Different stakeholders (e.g., health professionals, food industry representatives) may have very divergent perspectives on what should be allowed, which can impact the program's political feasibility. Standards must be clear and easy for vendors to identify allowed foods, but not include too many "unhealthy" foods such that the overarching nutrition goals are undermined. The tremendous variety in prepared foods makes even the most clear and straightforward standard difficult to enforce. While it is conceivably possible to design a healthy food purchasing supplement program including prepared foods, this report was unable to identify one that was easily scalable beyond farmers' markets (Kansas City Beans&Greens) or that did not require intensive and costly technological infrastructure (HealthyFood in South Africa).
- **Delivery Options:** Delivery may be used to increase the access of non-mobile populations to healthy foods. This can be done through partnership with CSAs or grocery delivery services. There are at least 13 fruit and vegetable CSAs in San Francisco,[80] and there are at least ten more CSAs that offer meat and dairy products.[81] The use of CSAs is not widespread among healthy food purchasing supplement programs, but Wholesome Wave's Double Value Coupon Program (DVCP) has succeeded in incorporating CSAs in some locations. In existing models, CSAs typically use incentive funds to subsidize the cost of shares for beneficiaries. For example, a CSA that may normally sell shares for $600 charges only $300 and covers the remaining expenses with incentive funds. Due to federal restrictions on SNAP payment timing, SNAP customers in the DVCP programs typically pay for their CSA shares at the point of pick-up or on a bi-weekly basis, rather than once at the beginning of the season.[82] San Francisco could follow the lead of DVCP and create a voucher for beneficiaries to use at local CSAs. Another relatively new idea is to use food delivery retailers as vendors. In New York, the private delivery retailer FreshDirect has recently created a pilot program to serve SNAP beneficiaries, but this approach has never been implemented at a significant scale.[83] Still, in urban areas like San Francisco, there is a growing demand for these types of services. A supplemental program could partner with commercial retailers, like AmazonFresh, or utilize existing city programs that currently deliver food to low-income seniors and persons with disabilities.

7. Conclusion

The purpose of Part 1 of this report has been to analyze the practices of healthy food purchasing supplement programs in operation across the United States, in combination with program evaluation reports and academic literature, in order to provide recommendations for how a healthy food purchasing supplement program could be implemented in the city of San Francisco. The analysis led to recommendations for two comprehensive program packages that would be effective in helping the city meet its goal of ensuring that that all San Franciscans are food secure and hunger-free by 2020. Next steps should focus on the following:

- Collaborating with local organizations to build consensus and refine program design;
- Discussing and receiving feedback on potential design options with possible beneficiaries and vendors;
- Meeting with technology providers to discuss benefit delivery options;
- Securing funding; and
- Developing an evaluation strategy that reflects the program's goals and the city's priorities.

Recognizing that no program is ever fully comprehensive in its reach, San Francisco may also consider developing supplemental program components in order to better serve populations with constraints that prevent participation in a widely scalable healthy food purchasing supplement program. These efforts should be based on ongoing evaluation and may include:

- Providing services for non-mobile populations through delivery options, including CSAs and grocery delivery services; and
- Allowing a subset of beneficiaries, such the homeless and SRO residents, to purchase healthy prepared foods.

These options must be explored and analyzed within the context of the comprehensive program design that the city of San Francisco determines to best fit its needs. Is it recommended that the general, widely scalable healthy food purchasing supplement program be implemented prior to the addition of either of the above supplemental options.

Healthy food purchasing supplement programs can play an important, but relatively narrowly defined, role among a broader set of comprehensive policy solutions. They will not be sufficient to ensure food security in isolation. Therefore, special attention should be focused on the nature of the relationship among existing food security policies and programs and the new healthy food purchasing supplement program. An effective healthy food purchasing supplement program will both enhance the effectiveness of current policies and provide a new way to address unmet need in San Francisco.

PART 2:

Program Design Toolkit

1. Introduction

Whereas Part 1 of this report focused on recommendations for San Francisco, Part 2 is intended as a complementary reference guide that considers questions of program design and implementation more broadly. It aims to give anyone designing a healthy food purchasing supplement program the information and tools needed to make informed decisions.

Part 2 includes the following sections: a comprehensive menu of program design options, a set of case studies of existing model programs, and a best practices analysis of program implementation and operations logistics. The content in these sections is drawn from two major sources: a comprehensive review of relevant literature and a set of program interviews. In addition, the report integrates novel, creative ideas for program design to present a complete survey of both the existing landscape and future trends.

The first major component of Part 2 is a comprehensive Menu of Options for program design. It decomposes programs along five major design elements or "parameters" and presents a thorough analysis of all options available along each parameter. The Menu of Options is intended as a thorough reference tool that fills a gap in the existing program design literature. Further, it may prove useful to San Francisco as a complement to the program recommendations covered in Part 1 for two major reasons. First, the Part 1 recommendations were made to fit the existing political context. Should political realities shift in a way that requires the city to reconsider design elements, this section will prove useful. Second, the overall program design landscape is shifting nationally, especially in terms of technology. Options that are not currently feasible may become easier to implement with time. The Menu of Options gives the city a forward-looking perspective on what is possible.

The second section in Part 2 provides analytical case studies of existing programs. This section is intended to give a brief but detailed overview of complete program packages as they operate today. Major successes, challenges, and significant outcomes are noted for each program.

Part 2 concludes with a best practices analysis of program logistics, i.e., the practical aspects of implementation, operations, and evaluation. Taken from interviews with program administrators, the recommendations in this section identify common strategies for effective program administration regardless of specific design.

2. Comprehensive Menu of Options

2.1 Introduction

To design a program, consensus is needed on five major considerations: who the target beneficiaries will be; how the food benefit will be designed; which vendors will participate; what technology will be used to deliver and redeem benefits; and what entity will administer the program. These five considerations are termed "parameters" in this section, and the analysis focuses on providing a thorough range or "menu" of options along each parameter. As a whole, this section should be used as an analytical tool to select the individual parameter options most appropriate to a city's goals and then combine them to create a program package.

The full range of options that will be discussed for each parameter is shown in the table on the following page.

Figure 1: Comprehensive Menu of Options

Comprehensive Menu of Options						
Beneficiaries	Benefit Design			Vendors	Technology	Administration
	Amount	*Structure*	*Allowed Foods*		*Delivery Mechanism*	
SNAP/CalFresh	Varies by program type	Cash-value credit	Fresh fruits and vegetables	Supermarkets	Existing financial infrastructure	Government agency
WIC		Cash-value credit tied to specific actions	Fresh and frozen/canned fruits and vegetables	Small/independent grocery stores and corner stores	Voucher	Community organization
Senior FMNP		Point-of-sale matching incentive	WIC restrictions	Farmers' markets	Token	Industry group
SSI/SSD		Delayed rebate incentive	Other "healthy food" list	EBT-certified vendors	Gift card	Health plan or provider
State or local assistance programs			SNAP restrictions	WIC-certified vendors	EBT card	
Any government assistance			All farmers' market items	Mobile markets	New debit style card	
Medical clinic membership			No restrictions	CSA	New WIC-style card	
Participation in other community programs or organizations				Delivery retailers		

The five subsections that follow discuss in detail the range of options available for each of the five major design parameters. Some parameters—in particular, benefit design—encompass multiple considerations, and ranges of options are presented for multiple considerations where appropriate. For each option, the analysis that follows provides a brief description; highlights the benefits of that option to beneficiaries, vendors, and administrators relative to other options within the parameter; discusses major implementation and operations challenges; and notes any dependencies on option selections within other parameters.

2.2 Beneficiaries

A key aspect of any healthy food purchasing supplement program is the beneficiary population it targets. Like any city, San Francisco can choose to target a number of populations, ranging from recipients of existing nutrition benefits to individuals beyond the reach of government assistance.

To enable a more nuanced analysis, this section considers various subpopulations in turn. Broadly, the beneficiary options presented here begin with narrowly defined groups and expand outward. Unlike the options for several other parameters, these are not exclusive: a program may choose to target one or more of the beneficiary populations discussed.

Figure 2: Beneficiary Population Options

Beneficiary Population Options		
#	Beneficiary Population Option	Example Programs
1	SNAP/CalFresh	• All Market Match programs • Health Bucks • Healthy Incentives Pilot (HIP) • SNAP+
2	WIC	• UCSF Pilot • Market Match (New Orleans)
3	Senior FMNP	• Kansas City Beans&Greens • Market Match (New Orleans)
4	SSI/SSD	• Market Match (Los Angeles County)
5	State or local assistance programs	• Market Match (Los Angeles County)
6	Any government assistance program	• Greenbucks
7	Medical clinic membership	• VeggieRx • Fruit and Vegetable Prescription (FVRx)
8	Health insurance	• Independent Health Nutrition Program • HealthyFood Program
9	Participation in other community programs or organizations	• Health Bucks

Option 1: SNAP/CalFresh

Recipients of SNAP benefits are a population frequently targeted by healthy food purchasing supplement programs. The SNAP benefit has clear eligibility criteria, and EBT cards can be used as proof of participation. Because many SNAP participants also receive other government benefits such as Medicaid, SNAP participation is sometimes viewed as a proxy for economic vulnerability. A variety of existing programs focus on SNAP recipients, both in the context of farmers' markets (e.g., Market Match and Health Bucks) and at grocery stores (e.g., HIP and SNAP+).

- Benefits
  - Presents a large beneficiary population that overlaps with other social safety net programs.
  - Allows for easy eligibility verification with EBT cards.
  - Leverages existing acceptance of EBT, including at farmers' markets.
  - Allows for use of Farm Bill money as a potential funding source.
  - Can draw on numerous existing SNAP-focused programs for guidance.
- Challenges
  - Misses many vulnerable individuals; for example, nearly half of SNAP-eligible individuals in San Francisco are not enrolled in the program.[84]
  - Requires continuous beneficiary training and outreach because the SNAP program experiences significant levels of churn.
  - Does not represent significant innovation, as the SNAP/CalFresh population is already the focus of existing Market Match programs in San Francisco and elsewhere.
- Dependencies
  - Vendors: Becomes harder to implement if farmers' markets do not currently accept EBT.

Option 2: WIC

WIC recipients are another beneficiary population targeted by several existing programs. The WIC nutrition program targets pregnant and breastfeeding women as well as children aged zero through five. WIC delivers benefits through a number of mechanisms. In addition to grocery store benefits, the program offers cash-value vouchers to be spent specifically on fruits and vegetables. WIC also offers a Farmers' Market Nutrition Program (FMNP) that distributes coupons for use at farmers' markets. Market Match in New Orleans, along with the UCSF Fruit and Vegetable Voucher Pilot, is an example of an existing program that provides benefits to WIC recipients.

- Benefits
  - Addresses a vulnerable population that covers many children—important for political feasibility.
  - Targets a population with clear eligibility criteria.
  - Can use WIC vouchers for easy beneficiary identification.
  - Creates a built-in way of contacting beneficiaries, since WIC participants already have regular in-person visit requirements at WIC sites.
  - Leverages existing vendor acceptance and familiarity with WIC, especially at participating grocery stores.
- Challenges
  - Reaches a smaller population than a program targeting SNAP.
  - Limits benefit amounts for a matching program, as WIC participants typically receive fewer funds than SNAP recipients (especially with FMNP).

- If benefits are used to match existing WIC funds, challenging to implement at farmers' markets because of low current WIC acceptance rates and program requirements for reimbursement at the individual farmer level.
- Creates technology challenge: WIC technology must transition to EBT by 2020, so any benefit delivery system will likely need to be overhauled at that time.

- Dependencies
  - Technology: Currently easiest with paper or tokens, but benefit delivery technology will transition within the next few years.
  - Vendors: Due to burden on individual vendors and farmers, easier to implement with larger stores.

Option 3: Senior Farmers' Market Nutrition Program (SFMNP)

Like WIC recipients, seniors are also eligible for coupon booklets under the Farmers' Market Nutrition Program. SFMNP provides low-income seniors with funds that can be used to purchase fresh fruits, vegetables, herbs, and honey at farmers' markets. Across California, the program annually distributes $850,000 in coupon booklets that can be redeemed at 700 markets.[85] Kansas City Beans&Greens and Market Match in New Orleans are examples of existing healthy food purchasing supplement programs that provide benefits to SFMNP recipients. Typically, beneficiaries receive a matching incentive after they use all their coupons and present the empty coupon booklet to a market manager.

- Benefits
  - Targets a vulnerable population that is overlooked by most incentive programs.
  - Leverages the fact that beneficiaries already come to farmers' markets to redeem their coupons.
- Challenges
  - Addresses a population that is small and not well known politically. San Francisco, for example, only issued 2,000 SFMNP coupon books in 2013.
  - Limits benefit amounts for a matching program, as SFMNP participants typically receive very limited funds (around $24 per year).[86]
  - May create barriers to access, as seniors often face transportation and mobility issues.
- Dependencies
  - Benefit design: Only observed with matching incentives to date.
  - Vendors: Restricts the program to farmers' markets.
  - Technology: Relies on paper SFMNP vouchers with no plans for a technology upgrade, so any incentives would likely be low-tech as well.

Option 4: SSI/SSD

Seniors receiving Supplemental Security Income (SSI) or Social Security Disability benefits (SSD) are another beneficiary population that can be targeted with a healthy food purchasing supplement program. In California, SSI recipients are not eligible for CalFresh; instead, they receive a $10 "cash-out" for CalFresh as part of their monthly payments. For this reason, the SSI population has traditionally been difficult for California incentive programs to reach. However, model programs do exist: Market Match offers incentives to SSI recipients in Los Angeles County. During their first visit to a farmers' market, SSI recipients present paper verification of their eligibility status, and their information is entered into a market database. At subsequent visits, recipients are checked against this database and may then make initial purchases with cash, which are matched with incentives in the market currency.

- Benefits
  - Targets a large, vulnerable population that is excluded from receiving CalFresh.
  - Offers a clear way to check eligibility via paper verifications.
- Challenges
  - Requires significant outreach and marketing, since the SSI population is not targeted by most existing incentive programs.
  - Creates barriers for beneficiary contact, as current recipients do not have frequent in-person check-ins at any distribution sites.
  - May create barriers to access, as seniors often face transportation and mobility issues.
  - Would incur significant up-front cost to build infrastructure because no stores or markets currently offer benefits to SSI recipients.
  - Complicates the determination of spending amounts for matching purposes, since the beneficiaries do not have EBT cards or dedicated vouchers.[xiii]
- Dependencies
  - No strict dependencies.

Option 5: State or local assistance programs

In addition to targeting recipients of federal nutrition programs, healthy food purchasing supplement programs can expand their reach by including the beneficiaries of state or local assistance programs. For example, First 5 LA is an organization in Los Angeles County that seeks to "increase the number of LA County children ages 0 to 5 who are physically and emotionally healthy, ready to learn, and safe from harm."[87] As part of its investment in physical and mental health, First 5 LA issues its own "veggie voucher" subsidies to families of low-income children. Market Match then incorporates these First 5 LA vouchers into its farmers' market incentive program in LA County.

- Benefits
  - Targets vulnerable populations.
  - Reinforces work of local or state assistance programs through additional funds or incentives.
  - Offers a way to check eligibility through paper documentation or existing databases.
- Challenges
  - May be limited in scale because local assistance programs often target small populations.
  - Often overlaps with larger federal benefits and programs—raises doubts as to whether new individuals are really being reached.
  - Presents challenges regarding the integration of the local assistance program and the incentive program in terms of infrastructure, currency, reporting requirements, etc.
- Dependencies
  - Vendors: May be limited to the vendor network of the local or state assistance program.
  - Technology: Must be compatible with the currency or benefit delivery mechanism of the local or state assistance program.

[xiii] Los Angeles County tracks cash receipts for this purpose.

Option 6: Any government assistance program

The broadest way to reach vulnerable populations with a new food benefit while leveraging existing safety net programs is to extend eligibility to all individuals receiving some form of government assistance. The Greenbucks program implemented this option in Massachusetts. Available benefit vouchers were given to local non-profits for distribution. Any individual on federal nutrition assistance or a safety net program such as Medicaid was eligible to apply for the benefit. In practice, some non-profits took applicants at their word without requiring eligibility verification.[88] This allowed benefits to reach anyone who requested them.

- Benefits
  - Targets broad, large population.
  - Has potential to reach nearly all food-insecure people if well publicized.
- Challenges
  - Complicates eligibility determination and tracking.
  - Generates complexity in outreach strategy, which may differ for the various subpopulations.
  - Generates complexity in distribution strategy, which may differ for the various subpopulations.
  - Makes benefit cost difficult to anticipate; aggregate Greenbucks demand was far higher than expected.
  - Can generate significant administrative cost due to the sources of complexity listed above.
- Dependencies
  - Technology: Requires adequate payment and reimbursement infrastructure to handle a potentially large number of redemptions—this can either be a large up-front investment or a large ongoing operations cost.
  - Administration: Requires partnerships and integration among numerous agencies and community organizations to be effective.

Option 7: Medical clinic membership

While most existing model programs target recipients of state or federal nutrition assistance programs, there are a number of other strategies for targeting vulnerable populations. One highly focused approach is to determine eligibility for a program based on membership at a health provider or community-based health clinic. Beneficiaries in the FVRx program are drawn from patient populations at participating health clinics on the basis of high BMI among children and pregnant women. The Bay Area-based VeggieRx program similarly works with community-based health clinics to enroll patients with demonstrated risk factors for diabetes.

- Benefits
  - Allows for precise targeting based on health factors and establishment of target outcomes (e.g., percentage improvements in BMI).
  - Facilitates tracking of participants, who already visit clinics regularly.
  - May enable a program to reach more undocumented residents and other vulnerable groups that access care at community clinics.
- Challenges
  - Targets small, self-selected population.
  - Offers no existing food redemption or benefit infrastructure.
- Dependencies
  - Benefit design: Provides no easy way to offer a matching option.

- Administration: Requires close partnership with health clinics or providers.

Option 8: Health insurance

A broader way to target beneficiaries beyond existing nutrition programs is to base eligibility on health insurance status. The HealthyFood Program in South Africa and the Independent Health Nutrition Program in New York State are two examples of healthy food purchasing supplement programs that have targeted individuals enrolled in a private insurance plan. Targeting individuals receiving Medicaid or health insurance exchange (e.g. Covered California) coverage could enable a program to reach a large number of low-income individuals.

- Benefits
  - Could target a broader food-insecure population up to 300% or 400% FPL, based on exact eligibility criteria.
  - Facilitates eligibility verification through paper insurance documentation.
  - Includes private insurance companies as a potential funding source.[xiv]
- Challenges
  - Creates uncertainty around eligibility in the short term due to the ACA transition.
  - Offers no existing food redemption or benefit infrastructure.
  - May miss vulnerable senior populations who receive Medicare.
  - Requires complex administrative coordination, especially with health insurance exchanges.
- Dependencies
  - Benefit design: Provides no easy way to offer a matching option.
  - Administration: Requires close partnership with health insurers and exchanges.

Option 9: Participation in other community programs or organizations

The broadest option for reaching vulnerable populations is to target participants in a wide variety of community programs or organizations. Health Bucks, a government-administered program, has demonstrated the effectiveness of this approach in recent years. While the majority of the program's benefits accrue to SNAP recipients in the form of matching funds, Health Bucks also partners with over 250 community-based organizations to distribute benefits. Diverse organizations such as schools, daycares, health clinics, and church groups may apply for the right to distribute Health Bucks to the individuals they serve, regardless of specific income or government assistance eligibility. The only requirement is that the community-based organizations link the distribution of Health Bucks to some form of health or nutrition programming.

- Benefits
  - Reaches a broad and diverse group, including individuals who are not enrolled in large benefit programs but participate in small organizations.
  - Targets an active, engaged population through community organizations.
- Challenges
  - Is not compatible with rigorous centralized eligibility determination.
  - Requires extensive coordination with all organizations distributing benefits.
  - Provides little quality control for organizations' programming or training.

[xiv] This was the case with HealthyFood and Independent Health.

- Creates uncertainty about individual program duration and participant churn.
- Is unlikely to reach the food-insecure populations that have mobility issues or are unable to a make time commitment to an organization.

- Dependencies
  - Benefit design: Provides no easy way to offer a matching option.
  - Administration: Requires a single central entity, likely a government agency, to partner with numerous community organizations.

In summary, a healthy food purchasing supplement program has numerous options for targeting vulnerable populations. It can leverage eligibility for one or more federal assistance programs, but it can also broaden its reach by drawing participants from health clinics, health insurance, and community organizations. The options are not mutually exclusive. However, the various subpopulations have different needs, and benefits must be tailored to reflect this diversity.

2.3 Benefit Design

Benefit design encompasses many central aspects of a healthy food purchasing supplement program. Of the five parameters, it is the most complex, with a number of options available along multiple dimensions. In this section, benefit design is broken into three major elements: benefit amount, benefit structure, and allowed foods; several additional considerations are discussed at the end of the section. This section does not consider benefit delivery mechanisms—e.g., paper coupons and EBT cards—as these are covered later as part of the technology parameter.

Benefit Amount

The scientific literature does not provide a clear recommendation of the "right" benefit amount (in economic terms) to achieve desired results. Typically, the "right" amount is considered to be the amount needed to induce a desired change in consumer behavior. Using data on elasticity, an economic measurement assessing individuals' purchasing behavior in response to price, the USDA Economic Research Service estimates that a 10% price reduction in produce price for low-income individuals would result in a 2.1 to 5.2% increase in fruit consumption and a 2.1 to 4.9% increase in vegetable consumption. In this case, the low-income category is defined as individuals eligible for SNAP benefits.[89]

In practical terms, programs that distribute up-front benefits without a matching incentive structure have typically selected benefit amounts that are simple for beneficiaries to understand and simple to administer. For example, the FVRx and VeggieRx programs provide "prescriptions" worth $1 per person per day in each participating household because this number makes intuitive sense to beneficiaries.[90] Other programs giving out up-front benefits have chosen a particular dollar amount for each voucher or token but have not limited the number of benefits each participant can receive. Health Bucks created $2 vouchers for ease of administration, but most beneficiaries are not limited to a single voucher.

Nearly all programs distributing benefits as matching incentives have opted to match participant funds with benefits dollar for dollar—again, largely because this system is easy to understand. The only exceptions noted among the programs interviewed are the Bay Area Market Match program, which matches $10 of spending with a $5 incentive, and Health Bucks, which matches $5 of spending with a $2 voucher in some cases. These programs felt that the smaller incentives could still change behavior while saving on benefit costs. In nearly all cases, matching benefits are capped at a certain dollar amount. This can range from $5 per market day in Minnesota's Market Bucks program to $25 per market day in some seasons of Market Match in New Orleans.

Among the surveyed programs, funding availability has been the largest driver of decisions about benefit amount. Yet beyond cost, several other considerations can play a role. For example, Double Up Food Bucks decided to cap its matching benefit at $20 per week at farmers' markets because administrators felt that $40 was what a family could reasonably spend on fruits and vegetables in a week.[91] The Greenbucks program priced its vouchers at $2.50 in consultation with farmers to ensure the vouchers could purchase enough different types of food.[92] Finally, programs that issue benefits that must be redeemed all at once, e.g., paper vouchers, have attempted to issue benefits in denominations that can be completely used up by a typical purchase at a store or market.

Benefit Structure

This section describes options for structuring the acquisition of a benefit, as summarized in the table below. Some options are earned without any action. Others require beneficiaries to take an action, such as participating in a health or nutrition education class, before receiving the benefit.

Figure 3: Benefit Structure Options

Benefit Structure Options		
#	Benefit Structure Option	Example Programs
1	Cash-value credit	• Greenbucks • UCSF Pilot
2	Cash-value credit tied to specific actions	• VeggieRx • Fruit and Vegetable Prescription (FVRx) • Health Bucks
3	Point-of-sale matching incentive	• All Market Match programs • Market Bucks • Kansas City Beans&Greens • Double Up Food Bucks (DUFB) • Double Value Coupon Program (DVCP) • SNAP+ • Healthy Incentives Pilot (HIP) • Health Bucks
4	Delayed rebate incentive	• HealthyFood Program • Independent Health Nutrition Program

Option 1: Cash-value credit

With cash-value credits, a certain amount of funds is simply given to designated participants without any stringent further requirements. The participants can be encouraged to complete additional tasks, e.g., participate in a follow-up health evaluation in the case of the UCSF Pilot—but crucially, the benefits are provided up-front. The funds can be distributed at designated locations like agency offices (as is the case with Greenbucks and the UCSF Pilot) or can even be mailed out. Participants are not required to spend any money or participate in any program; the funds are simply given to beneficiaries. In combination with a set of restrictions on allowed foods, the distribution of cash-value credits essentially subsidizes a specific package of goods for beneficiaries—for example, fruits and vegetables.

- Benefits
  - Can be given to all types of beneficiaries regardless of current benefit eligibility.
  - Places low demand on busy participants.
  - Can be mailed out for populations with low mobility.
  - Creates predictability in terms of funding: administrators can simply decide on a set amount for a given year, rather than basing it on matching or other unpredictable actions.
  - Allows for easy counting and tracking of funds.
- Challenges
  - Difficult to find points of contact for training and outreach if participants don't interact much with other program elements.
  - Limits incentive for participants to redeem the funds as compared to a matching incentive because none of a beneficiary's own funds are at stake.
  - Setting up mailing infrastructure can be costly.
  - Limits ability to track healthy behavior unless some sort of regular check-ins or surveys are conducted.
- Dependencies
  - Beneficiaries: Limits possible distribution mechanism to something that could be distributed in-person or by mail.
  - Administration: Achieving distribution levels and training may be easier for a government with existing addresses and databases as compared to a non-profit.

Option 2: Cash-value credit tied to specific actions

In this case, benefits are distributed to participants actively taking part in some sort of program. In order to get the benefit, beneficiaries must first demonstrate sufficient attendance and participation in the program. For example, beneficiaries may take part in a class (nutrition, cooking, etc.) or participate in health visits with clinics or providers. This model is most commonly used by program models like FVRx and VeggieRx, which focus on health education and outcomes. Participants must attend a number of structured clinic sessions to earn their food "prescriptions." Another model program is Health Bucks, which distributes a significant portion of its incentives through over 200 community-based organizations with the requirement that they link benefit distribution to broad health or nutrition programming.

- Benefits
  - Incorporates the food benefit into a broader set of interventions that target health, nutrition education, etc.
  - Increases the odds that benefits will be spent on healthy foods that participants actually know how to use.
  - Provides a regular point of contact between beneficiaries and administrative entities for distribution, check-in, etc.
- Challenges
  - Limits the number of people served at one time.
  - Assumes that participants have time participate; 15% of VeggieRx participants failed to complete the program in 2013,[93] and 42% of FVRx participants failed to complete the program in 2012.[94]
  - Restricts scalability to populations with full mobility.
  - Is associated with more costly programs because the classes/programs are expensive to run.

- Dependencies
  - Beneficiaries: Harder to bring to some populations than others, especially those with time or mobility challenges.
  - Administration: Presents participation enforcement and oversight challenges if the health or education programming is highly decentralized, as in the case of Health Bucks.

Option 3: Point-of-sale matching incentive

The majority of programs interviewed use a matching incentive structure. This benefit is calculated as a proportion of participant money spent and is made available at the time of purchase. Participants have to spend existing nutrition benefits—usually SNAP, but sometimes WIC or FMNP—or in rare cases some of their own money,[xv] to receive a matching benefit. Matching benefits may be used on the same or different foods than original benefits, depending on specific program design. For example, Market Match in the Bay Area allows SNAP participants to purchase any SNAP-eligible foods with EBT funds but distributes matching tokens that may only be spent on fresh fruits and vegetables. In contrast, Market Match in New Orleans also distributes matches for EBT use on SNAP-eligible foods, but beneficiaries may then use their matching benefits to purchase anything at the farmers' market.

Matching incentives are currently used at both farmers' markets and grocery stores. Depending on the technology used, the match may be given for an amount already spent or for an amount intended to be spent. In the first case, FMNP recipients may need to present an empty coupon booklet to receive a match. In the second case, beneficiaries may swipe their EBT card and receive SNAP tokens to spend at a market along with matching benefit tokens.

- Benefits
  - Ties any new program to an established nutrition program with a history of successful implementation, especially at farmers' markets.
  - Encourages participants to have some "skin in the game" by spending their own funds first, increasing likelihood of redemption.
  - Works easily with the existing technology of tokens at farmers' markets.
  - Can be customized in terms of the match percentage and amount cap based on available funding.
- Challenges
  - Easiest to implement for participants in existing nutrition programs, but harder to expand to individuals receiving no nutrition benefits.
  - Requires significant administrative work for tracking distribution and redemption, unless a fully automated system is implemented.
  - If token system, carries potential for fraud if individuals redeem incentives but give back original tokens.[xvi]
  - Limits vendor options: only a few pilots have expanded to grocery stores, and none have large, scalable systems yet.
  - Loosens ties to nutrition education and promotion activities. Since participants are not required to pick up benefits from a caseworker or CBO, they are less connected to and less motivated to participate in those resources.

[xv] Market Match in Los Angeles allows matching for cash purchases.
[xvi] This occurred at a location for the Double Up Food Bucks program. Only a few beneficiaries took advantage of the system this way.

- Dependencies
  - Beneficiaries: Works best with SNAP, WIC, and FMNP recipients.
  - Vendors and technology: Easiest to implement at farmers' markets because of existing infrastructure and the current state of technology.

Option 4: Delayed rebate incentive

Instead of receiving an immediately available match, beneficiaries can be issued a rebate after purchasing target foods based on the amount of eligible items purchased. Based on a literature review, two programs currently use a delayed rebate incentive structure. The HealthyFood Program in South Africa distributes rebate funds in the form of cash, a direct deposit, or a special Visa card; rebate funds can be used on any items. Independent Health distributes rebates quarterly as a supermarket gift card to be used on anything except tobacco products.[95]

- Benefits
  - Leads to increases in purchases of healthy foods and to decreases of less healthy foods similar to other programs. A 10% rebate has been associated with an increase in daily fruit and vegetable consumption by 0.38 and 0.64 servings respectively.[96, xvii]
  - Requires access to sales data, which is good for tracking purchases and evaluation.
  - Can work with existing financial infrastructure like direct deposit for benefit delivery.
- Challenges
  - Open to all individuals, not just low-income participants. In particular, food-insecure participants may not have sufficient money up front to realize a significant benefit.
  - Requires administrative effort to track and later provide benefits.
  - Requires administrator access to existing financial information for direct deposit or Visa payments, or at least access to mailing addresses for checks or cash.
  - If using direct deposit, cannot reach beneficiaries who lack a bank account.
- Dependencies
  - Vendors: Requires partnership with supermarkets in both existing programs.
  - Technology: Requires a tracking system for original spending to calculate rebate.
  - Administration: Only demonstrated to be scalable by insurance providers to date. The HealthyFood Program has enrolled 330,000 individuals country-wide.

Allowed Foods

Another key decision in setting up a healthy food purchasing supplement program is determining what foods may be purchased with benefits after they are distributed. The table below lays out the options encountered in example programs. The options are generally ordered from most restrictive to least restrictive.

[xvii] Confidence intervals for the estimates are small.

Figure 4: Allowed Foods Options

Allowed Foods Options		
#	Allowed Foods Option	Example Programs
1	Fresh fruits and vegetables	• Market Match (PCFMA) • Health Bucks • VeggieRx • SNAP+
2	Fresh and frozen/canned fruits and vegetables	• UCSF Pilot (frozen but not canned)
3	WIC restrictions	• Healthy Incentive Pilot (HIP)
4	Other "healthy food" list	• HealthyFood Program
5	SNAP restrictions	• Kansas City Beans&Greens • Market Bucks
6	All farmers' market items	• Greenbucks • Market Match (New Orleans)
7	No restrictions	• Novel Option

Option 1: Fresh fruits and vegetables

Numerous programs interviewed only allow benefits to be used toward the purchase of fresh fruits and vegetables. This is the most restrictive of all options.

- Benefits
  - Targets investment in low-calorie, nutrient-dense foods.
  - "Easiest" for vendors and beneficiaries to identify, though there can still be some surprising challenges (e.g., mushrooms, which are not technically a vegetable).
- Challenges
  - Limits beneficiary choice.
  - Restricts benefits to specific retailers, since only fresh fruit and vegetable vendors are reimbursed. This may upset non-fresh fruit and vegetable vendors—e.g., meat, cheese, and bread vendors—at farmers' markets.[97]
- Dependencies
  - Vendors: The largest selection of local fresh fruits and vegetables is available at farmers' markets, as compared to other vendor types.

Option 2: Fresh and frozen/canned fruits and vegetables

In addition to covering fresh fruits and vegetables, benefit requirements can expand to include frozen or canned fruits and vegetables. The UCSF Fruit and Vegetable Voucher Pilot expanded its list of allowed foods to include both fresh and frozen fruits and vegetables, though canned items remained excluded.

- Benefits

    - Allows for broader beneficiary choice.
    - Increases flexibility for recipients that have limited storage for fresh produce.
    - Increases likelihood that smaller neighborhood stores will already stock eligible products.
- Challenges
    - Can be more difficult for vendors and beneficiaries to identify eligible foods, especially if certain frozen items are eligible but other canned items are ineligible based on sugar or salt content.
    - Can be less healthy—for instance, items like frozen French fries might qualify.
    - Could include fruit juice, which tends to have more calories and fewer nutrients.
- Dependencies
    - Vendors: Frozen and canned items are readily available at most grocery stores, but not other types of vendors.

Option 3: WIC program restrictions

Another option is to base program restrictions on criteria already set by an existing nutrition program, such as WIC. For example, the Healthy Incentives Pilot (HIP) allowed participants to earn incentives by purchasing foods included in the WIC cash value voucher guidelines, i.e., fresh, canned, dried, and frozen fruits and vegetables.[98,xviii] No current program models its restrictions on the full list of WIC-approved foods, which includes whole grains and dairy, though this restriction type is possible as well.

- Benefits
    - Leverages an existing food package, so no need to go through process of selecting eligible items.
    - Reduces confusion for WIC participants and WIC vendors.
    - Provides a balance between flexibility of purchase and nutrient content.
    - Can potentially "borrow" training, vendor enrollment materials, and best practices from WIC.
- Challenges
    - Can be difficult to train or enforce the restrictions if vendors aren't already part of WIC and familiar with the restrictions.
    - Creates a learning curve for non-WIC participants.
- Dependencies
    - Beneficiaries and vendors: Best for WIC participants and WIC vendors.

Option 4: Other "healthy food" list

Alternatively, administrators may select eligible food items based on certain nutritional criteria and dietary guidelines. In the HealthyFood Program, a panel of nutritionists, physicians, and behavioral scientists conducted a systematic review to determine eligible foods. Their list is continually updated based on new products and research. Printed catalogues are made available, and the list is synced with two supermarket chain computer systems.[99]

- Benefits
    - Allows broader food choice for participants.
    - Can lead to better diet variety beyond fruits and vegetables.

[xviii] HIP made a small number of modifications to the WIC purchasing restrictions based on information from the National Health and Nutrition Examination Survey.

- Challenges
  - Would be a large undertaking to determine eligible food items, and can create political challenges.
  - Requires computerized transactions, so technologically intensive.
- Dependencies
  - Vendors: Limits vendors to large supermarket chains with computer systems, because of the state of current technology. Typically, it is difficult for smaller stores to track eligible items.
  - Administration: May be easiest if run by a non-government group. Various interests may have different opinions about which foods should be targeted and which excluded. If privately run, the process will have less opposition. [100]

Option 5: SNAP program restrictions

Similar to option 3, this option allows administrators to build off existing restrictions in the SNAP program, which allows the purchase of most food items found in stores but leaves out hot foods, foods to be eaten in-store, alcohol, tobacco, and non-food items.[101] Two of the programs interviewed utilize this option: Kansas City Beans&Greens and Market Bucks; both do so at farmers' markets.

- Benefits
  - Provides broad food choice for beneficiaries.
  - Can use same tokens for match and SNAP at farmers' markets.
  - Benefits a broader set of vendors, especially at farmers' markets.
  - Leverages existing vendor and beneficiary knowledge.
  - Reduces confusion for current SNAP vendors and SNAP beneficiaries.
- Challenges
  - Includes some non-healthy foods.
- Dependencies
  - Beneficiaries and vendors: Works best for those already familiar with SNAP restrictions.

Option 6: Anything at farmers' markets

In some cases, program benefits may be used to buy any foods available at a farmers' market. Of the programs surveyed for this analysis, Greenbucks and Market Match in New Orleans both allowed benefits to be spent on anything at participating farmers' markets.

- Benefits
  - Allows for broad beneficiary choice and dignity.
  - Includes prepared foods, which can be important for food security.
  - Works well to prevent confusion among beneficiaries and vendors.
  - Allows all vendors at farmers' markets to benefit from benefit redemptions.
- Challenges
  - Includes less healthy foods, including bread and pies.
- Dependencies
  - Vendors: Works only at farmers' markets or with CSAs.

Option 7: No restrictions

Lastly, as a novel option, administrators may choose to allow beneficiaries to buy any type of food with their benefits. However, determining exactly what counts as "food" would take time and could prove challenging. A panel of experts would be needed in this case to draw the "food" line.

- Benefits
  - Easiest to understand for vendors and beneficiaries.
  - Allows for broadest beneficiary choice and dignity.
  - Addresses hunger and food insecurity.
- Challenges
  - Includes less healthy foods.
- Dependencies
  - None.

Additional considerations

Finally, based on program interviews, several auxiliary issues must be considered when designing a food benefit.

Local food

Some programs, notably Double Up Food Bucks (DUFB), only allow benefits to be used to purchase fruits and vegetables grown in Michigan. DUFB imposed this restriction as a way to support the local economy and local small to mid-sized farmers. In DUFB, 92% of farmers have reported selling more fruits and vegetables as result of the program.[102] This type of restriction would likely generate support among local farmers, help to build a broad base of support for the program in rural and small business communities, and perhaps make the program more palatable to some elected officials.

Transferability to other locations

Some programs only allow benefits to be used at a single location, often where benefits are "earned" in some capacity. For example, Kansas City Beans&Greens gives out separate tokens at each farmers' market. Each token has a specific market's logo and cannot be used at any other markets. This system allows for precise tracking of redemption rates per location, but customizing tokens by market is expensive and creates an administrative burden. Additionally, it limits beneficiary choice. Yet, vendors may prefer this system because it encourages beneficiaries to return to a particular location.

In contrast, the Health Bucks program allows for vouchers to be used at any farmers' market. Health Bucks administrators report that vouchers are redeemed throughout the city and that in such a mobile urban environment, beneficiaries often earn and redeem vouchers at different locations. In designing a program, administrators must to decide what level of transferability makes the most sense based on the needs of beneficiaries and vendors.

Expiration date for benefits

A few programs issue benefits that do not expire, but most programs assign expiration dates to their benefits. Often, vouchers or tokens expire at the end of a market season, which would be challenging to determine in a city like San Francisco given California's growing conditions. The Kansas City Beans&Greens benefit does not expire; as a result, a fairly large number of unredeemed tokens are currently outstanding. This creates difficulties in planning for future budgets and tracking yearly redemption rates. For reference, it is also useful to note that WIC cash value vouchers expire after 30 days, so a shorter timeline could be imposed on benefit expiration.

2.4 Vendors

This section discusses eight types of vendors that currently sell food to potential beneficiaries and could participate in a healthy food purchasing supplement program. Vendors have had large incentives to participate in existing programs, since their revenues have often risen as a result.[xix] This analysis begins by covering large chain stores, which are called supermarkets, and small stores and farmers' markets; next, it discusses groupings of vendors affiliated with various government assistance programs; and it ends with a discussion of more innovative vendor types, including community-supported agriculture programs (CSAs) and delivery retailers. A potential program could choose to focus on a single type of vendor, or it could combine several of the options for a broad approach.

Figure 5: Vendor Options

Vendor Options		
#	Vendor Option	Example Programs
1	Supermarkets	• HealthyFood Program • Independent Health Nutrition Program
2	Small/independent grocery stores and corner stores	• Double Up Food Bucks: Grocery Store Pilot • SNAP+
3	Farmers' markets	• All Market Match programs • Market Bucks • Health Bucks • Greenbucks • Kansas City Beans&Greens • Double Up Food Bucks: Farmers' Market Program • VeggieRx
4	EBT-certified vendors	• Healthy Incentives Pilot (HIP)
5	WIC-certified vendors	• UCSF Pilot
6	Mobile markets	• Healthy Incentives Pilot (HIP)
7	CSA	• Double Value Coupon Program
8	Delivery retailers	• FreshDirect SNAP Pilot

Option 1: Supermarkets

This report defines supermarkets as large commercial grocery stores with a number of chain locations. These types of stores are distinct from independent stores and corner stores because of differing administrative structures and on-site technology. Program administrators focused on supermarkets could choose to work with all large chain stores, or just with a single large chain store with multiples locations.

- Benefits
  - Easy to access.
  - Creates natural incentive to draw more customers.

[xix] Health Bucks, Market Match, Double Up Food Bucks.

- Targets areas where beneficiaries are already shopping—a high percentage of government nutrition benefit redemptions occur at supermarkets.
- Allows for a larger selection of fresh foods as compared to other types of vendors.
- Leverages existing infrastructure to track redemption (i.e., on-site staff and supervision).
- May be better able to accommodate various technology solutions. Supermarkets use electronic cash registers that allow seamless and integrated benefit delivery to beneficiaries. Supermarkets are also able to integrate new benefits with existing coupon systems. For instance, the SNAP+ program used the existing manufacturer redemption coupon system to process benefits.
- Leverages back-end administrative capacity across locations.

- Challenges
  - May require approval from corporate headquarters to make on-the ground changes, and translating decisions made at headquarters to work on the ground (mostly through cashier trainings) may be difficult.
  - Requires that a program expect and plan for cashier turnover.
  - Can be politically challenging if a government agency chooses one or more supermarkets to participate but excludes others.
  - Requires recruitment of chains with the largest saturation in food-insecure areas.
- Dependencies
  - Technology solution: Works well with a high-tech solution. Potentially most burdensome and stigmatizing for clients if implemented with a low-tech solution.
  - Benefit design/Beneficiaries: If matching, lack of existing infrastructure and lack of matching funds for SFMNP, WIC, SSI, FMNP, or health clinic members.

Option 2: Small/independent grocery stores and corner stores

Alternatively, administrators can choose to work with smaller, often independent grocery stores. These types of establishments tend to have smaller administrative structures and different technology as compared to the larger supermarkets.

- Benefits
  - Provides access in most neighborhoods, though redemption rates at smaller stores have historically been low.
  - Creates a natural incentive to draw more customers.
  - Supports the local economy by directing money to local business owners, which may not be the case with supermarkets.
  - Can increase cultural appropriateness, since small stores typically carry culturally appropriate foods, and staff may speak the language of customers in their area.
  - Decreases stigma involved in redemption due to smaller checkout lines.
- Challenges
  - May produce fewer redemptions than a program aimed at supermarkets.
  - Targets vendors that may lack developed technology infrastructure.
  - May limit the available stock of fruits and vegetables.
  - Constrains staff time available for administrative work, especially at the smallest stores.

    - Requires more time for vendor recruitment and support than a supermarket strategy. HIP and the UCSF Pilot both found it time-intensive to recruit, train and support smaller independent stores.
    - Creates a decentralized structure.
    - Complicates the tracking of redemption data because of smaller staff and infrastructure.
- Dependencies
    - Technology: Certain types of benefit delivery mechanisms require a minimum level of technology not currently available at some small stores.
    - Benefit design: No current infrastructure or precedent for matching programs for SFMNP, WIC, SSI, FMNP, or health clinic members.

Option 3: Farmers' markets

Many of the surveyed programs around the country operate at farmers' markets, which provide consumers with access to a wide variety of healthy foods grown by local farmers.

- Benefits
    - Utilizes existing infrastructure for redemption.
    - Leverages existing market management. Market administrators can ensure that all farmers abide by program rules and can provide training.
    - Supports the local economy by directing money to local farmers and businesses, which may not be the case with supermarkets.
    - Leverages private investment, since farmers' markets help with outreach and on-site administration.
    - Builds on existing model programs across the country.
- Challenges
    - Limits the number of shopping locations available to beneficiaries.
    - Limits hours that beneficiaries can shop and may conflict with work hours, since many farmers' markets are only open during weekdays.
    - Targets a vendor type that makes up a smaller percentage of overall food purchases and government assistance redemptions by needy families than supermarkets or independent grocery stores.
    - Can entail some equity issues among individual farmers if redemptions are limited to farmers who only sell fruits and vegetables.
    - Limits scalability, since existing token technology requires significant manual work.
    - May create difficulties for redemption and consumption tracking.
    - May not be culturally appropriate for all potential beneficiaries.
- Dependencies
    - Beneficiaries: Leverages existing structure for some beneficiaries (e.g., SNAP, SFMNP) but not others (notably SSI).
    - Benefit design: Works best for matching incentive programs.
    - Technology: Works only with tokens or paper vouchers at the moment, but administrators could work with MobileMarket+ to develop additional technology options.

Option 4: EBT-certified vendors

A possible broader approach to vendor recruitment involves include any vendor that already accepts CalFresh EBT cards. The Healthy Incentives Pilot (HIP) in Massachusetts used this model of EBT-certified vendor recruitment.

- Benefits
  - Includes a broad range of retailers, including both supermarkets and farmers' markets.
  - Includes a broad array of available foods.
  - Can utilize existing EBT card technology.
  - Leverages existing administrative infrastructure.
- Challenges
  - May not provide a good selection of healthy foods across all locations. The SNAP program lacks minimum stocking requirements for fresh fruits and vegetables.
  - Requires a diverse strategy for recruiting supermarkets vs. independent stores.
- Dependencies
  - Benefit design and technology: What works best for one subset of EBT-certified vendors may be harder for others because this vendor group is so diverse.

Option 5: WIC-certified vendors

Alternatively, administrators can leverage the existing network of WIC vendors for a healthy food purchasing supplement program. The UCSF Pilot is a model program that used the WIC vendor network.

- Benefits
  - Leverages existing government relationship with stores.
  - Takes advantage of WIC minimum stocking requirements for healthy foods.
  - Creates a mix of large and small stores, which gives beneficiaries more choice.
  - Works especially well for WIC beneficiaries.
  - Leverages existing administrative infrastructure.
- Challenges
  - Requires a diverse strategy for recruiting supermarkets vs. independent stores.
  - Requires flexibility in dealing with technological disparities between large and small stores.
- Dependencies
  - Technology: Lacks an "ideal" technology solution because what is typically easier for supermarkets is harder for small stores.
  - Benefit design: No current infrastructure or precedent for matching programs for SFMNP, WIC, SSI, FMNP, or health clinic members.

Option 6: Mobile markets

Beyond traditional retailers, programs can innovate by using mobile markets as vendors. Mobile markets are vendors that can travel around a city and "pop up" in different, often targeted, locations. The Healthy Incentives Pilot (HIP) incorporated mobile markets into its vendor network.

- Benefits
  - Works for all beneficiaries, but is particularly useful for non-mobile populations.

    - Increases access to healthy, local foods.
- Challenges
    - Targets vendors that have not traditionally been involved with existing government nutrition programs.
    - Targets vendors with very little payment infrastructure.
    - May generate little incentive for target vendors to set up in low-income communities.
- Dependencies
    - Beneficiaries: Works best for seniors and non-mobile populations.
    - Benefit design: Lacks precedent or infrastructure for a matching incentive.
    - Technology: Works only with tokens or paper vouchers at the moment, but administrators could work with MobileMarket+ to develop additional technology options.

Option 7: CSA

Another innovative option is to subsidize the cost of participating in a community-supported agriculture program (CSA). The use of CSAs is not widespread among healthy food purchasing supplement programs, but Wholesome Wave's Double Value Coupon Program (DVCP) has succeeded in incorporating CSAs in some locations. In existing models, CSAs typically use incentive funds to subsidize the cost of shares for beneficiaries. For example, a CSA that may normally sell shares for $600 charges only $300 and covers the remaining expenses with incentive funds. Due to federal restrictions on SNAP payment timing, SNAP customers in the DVCP programs typically pay for their CSA shares at the point of pick-up or on a bi-weekly basis, rather than once at the beginning of the season.[103]

- Benefits
    - Provides access for all, but especially non-mobile, populations.
    - Decreases redemption stigma because up-front payment is possible for some beneficiaries.
    - Encourages consumption of healthy, local foods—largely fruits and vegetables.
    - Increases investment in locally grown foods.
    - Increases the number of available pick-up points, as compared to other vendor options.
    - Leverages existing delivery and distribution infrastructure.
    - Allows for recipes, health tips, etc. to be included with CSA package.
- Challenges
    - Creates a decentralized structure with many independent vendors.
    - Creates difficulties with outreach and enrollment because of the decentralized structure.
    - May not be scalable due to limited number of CSAs willing to participate.
    - May create a learning curve for participants, since target populations may not be familiar with the CSA concept.
    - May decrease the variety of culturally appropriate foods available.
    - Can drive up benefit costs, based on CSA pricing.
    - Can carry high administrative cost, particularly if sign-ups are not done online.
- Dependencies
    - Beneficiaries: Works best for seniors and non-mobile populations.

Option 8: Delivery retailers

Another relatively new idea is to use food delivery retailers as vendors. In New York, the private delivery retailer FreshDirect has recently created a pilot program to serve SNAP beneficiaries, but this approach has never been implemented at a significant scale.[104] Still, in urban areas like San Francisco, there is a growing demand for these types of services. The program could partner with commercial retailers, like AmazonFresh, or utilize existing city programs that currently deliver food to low-income seniors and persons with disabilities.

- Benefits
  - Increases accessibility for seniors and other non-mobile populations.
  - Leverages existing government and non-government programs.
  - Targets broad low-income populations.
  - If commercial, leverages private investment in program infrastructure, including staff and trucks.
- Challenges
  - May complicate outreach and enrollment for new programs.
  - If partnering with commercial retailers, uses a vendor network with no historic involvement with food security and low-income populations.
  - May not provide exclusively local foods or foods from small to mid-sized farmers.
  - Increases administrative cost, especially for delivery.
  - Creates difficulties around technology, especially if retailers use online access.
- Dependencies
  - Benefit design: Limits options for a matching incentive design.
  - Technology: May require the use of online payments, which are standard for delivery retailers.

2.5 Technology

The choice of technology for benefit redemption is as critical as the choice of beneficiaries and vendors to conduct these transactions. Technology, as discussed in this section, is distinct from benefit design and refers specifically to the mechanism by which benefits are delivered to beneficiaries, stored, and redeemed. A single benefit technology may be compatible with multiple benefit designs. For example, one program may match cash purchases with a gift card, while another may distribute gift cards to participants in nutrition classes. In both cases, the gift card is the benefit technology.

This section begins by discussing benefit delivery mechanisms. In addition, it analyzes two broader trends in payment technology relevant to healthy food purchasing supplement programs: mobile market payment and online payment.

Delivery Mechanism

A number of mechanisms may be used to deliver benefits to participants. The options presented here span a continuum from low-technology to high-technology systems.

Figure 6: Delivery Mechanism Options

Delivery Mechanism Options		
#	Delivery Mechanism Option	Example Programs
1	**Existing financial infrastructure**	• HealthyFood Program
2	**Voucher**	• UCSF Pilot • Health Bucks • Market Bucks • Greenbucks • SNAP+ • VeggieRx • Fruit and Vegetable Prescription (FVRx)
3	**Token**	• All Market Match programs • Kansas City Beans&Greens • Double Up Food Bucks: Farmers' Market Program
4	**Gift card**	• Double Up Food Bucks: Grocery Store Pilot • Independent Health Nutrition Program
5	**EBT card**	• Healthy Incentives Program (HIP)
6	**New debit card**	• CHAMPSS
7	**New WIC-style card**	• Novel Option

Option 1: Existing financial infrastructure

The simplest way to deliver food benefits without making any investment in payment technology is to use existing financial infrastructure. This includes the use of cash, checks, existing major credit or debit accounts, or bank accounts via direct deposit. The HealthyFood Program in South Africa leverages existing financial infrastructure as a payment system: beneficiaries receive a monthly rebate for target food purchases on a Visa card or into a chosen bank account.[105]

- Benefits
  - Uses existing financial systems.
  - Is easy for beneficiaries to understand and use.
  - Relies on payment forms already accepted by all retailers.
- Challenges
  - Cannot effectively reach individuals who lack a bank account.
  - Provides no way to track or limit the items the incentive funds are spent on, e.g. healthy vs. unhealthy foods.
  - Presents political acceptability challenges if administered by a government entity: generally speaking, the public is more supportive of in-kind benefits rather than cash.
- Dependencies
  - Beneficiaries: Requires knowledge of mailing addresses or bank account information to deliver benefits.

- Benefit design: Is most compatible with matching or rebate incentives.

Option 2: Voucher

A voucher is any piece of paper or plastic with a discrete face value. It is one of the most flexible benefit delivery mechanisms. Vouchers can be given out on their own (e.g., in the FVRx program), used as an incentive with tokens (e.g., in the Market Bucks program), or distributed as coupons after EBT card use (e.g., in the SNAP+ program). Several small technology upgrades can facilitate voucher use. For example, Health Bucks uses barcoded vouchers with serial numbers, and VeggieRx issues vouchers with QR codes for back-end scanning.

- Benefits
  - Can be used with any benefit design.
  - Can be used to target any beneficiary population.
  - Incurs low implementation cost.
  - Does not require any on-site technology such as card readers.
  - Compared to tokens, offers better capacity to track individual use through a numbering or QR code system.
- Challenges
  - Given out in discrete amounts and must be used all at once—this limits spending flexibility for beneficiaries.
  - Can create stigma by standing out from other currency types.
  - Relatively easy to lose, steal, or copy unless design features are used to discourage fraud.
  - Requires special training and extra work at grocery stores.
  - Must be converted into existing payment forms at farmers' markets.
  - Requires labor-intensive work on the back end for redemption tracking—limited economies of scale.
  - Cannot provide any information about item-level redemptions unless beneficiaries or vendors indicate this manually.
- Dependencies
  - Beneficiaries: Difficult to distribute unless participants regularly appear in person—otherwise, incurs mailing costs.
  - Vendors: Can burden small retailers disproportionately with extra tasks.
  - Administration: If led by a government entity, can increase state administrative cost due to labor-intensive redemption tracking.

Option 3: Token

Tokens are a form of currency frequently used at farmers' markets. Because of this existing infrastructure, many incentive programs operating at farmers' markets—including all Market Match models—rely on tokens to deliver benefits. Like vouchers, tokens are compatible with several benefit designs. For example, they can be given out after an EBT swipe, after presentation of an empty FMNP coupon booklet, or after a cash transaction. Tokens can be produced with a specific market's insignia to limit geographic use. In addition, programs can decide whether to introduce a distinct token type for matching incentives (e.g., PCFMA Market Match) or to use the same tokens for both incentives and credit/debit transactions (e.g., Market Match in New Orleans).

- Benefits
  - Can be used to target any beneficiary population.
  - Reduces participant stigma if all farmers' market visitors receive tokens.

    - Can be used to restrict purchases to a subset of foods (e.g., fruits and vegetables) based on token color, etc.
    - Harder to replicate than vouchers, so can reduce fraud.
    - Incurs low implementation cost.
    - Does not require any on-site technology, but can be used with existing technology such as EBT terminals.
    - Can be counted with special machines (if metal tokens)—greater economies of scale than with vouchers.
- Challenges
    - Given out in discrete amounts and must be used all at once—this limits spending flexibility for beneficiaries.
    - Relatively easy to lose, steal, or transfer unless design features are used to discourage fraud.
    - Not used at grocery stores.
    - Not seen as a progressive technology at farmers' markets.
    - Requires some manual counting, especially at a small scale.
    - Can complicate redemption tracking if incentive tokens are not distinct from other tokens (e.g. in the case of Market Match in New Orleans).
    - Cannot provide automatic information about individual redemption or item-level spending.
    - Can be expensive to purchase or manufacture.
- Dependencies
    - Benefit design: Works best with point-of-sale matching incentives.
    - Vendors: Common at farmers' markets but incompatible with grocery stores.

Option 4: Gift card

A gift card stores a certain amount of value like a voucher or token, but it is swiped electronically and can be used to redeem stored benefits gradually. Double Up Food Bucks is currently running a Michigan grocery store pilot in which SNAP participants who spend at least $10 on fruits and vegetables receive a $10 gift card. Independent Health offers participants rebates for purchasing healthy foods, and the incentives are mailed quarterly in the form of a gift card.[106]

- Benefits
    - Can be used with any benefit design.
    - Can be used to target any beneficiary population.
    - Allows for gradual benefit redemption for greater participant flexibility.
    - Enables tracking of individual spending through card numbering.
    - Can leverage existing gift card infrastructure and context as certain supermarkets.
- Challenges
    - Is limited in current use at small grocery stores.
    - Not currently used at farmers' markets.
    - Requires investment in technology for card swipe machines.
    - Carries risk of fraud if cards are not tied to specific participants.
    - Provides no easy way to restrict spending to particular foods—this would depend on cashier or vendor training.
- Dependencies
    - Beneficiaries: Difficult to distribute unless participants regularly appear in person—otherwise, incurs mailing costs.

- Vendors: Much easier to implement at supermarkets than at small stores or farmers' markets.

Option 5: EBT Card

A more technologically complex alternative is to modify existing EBT card (SNAP) infrastructure to allow for the operation of a new benefit program. In theory, EBT technology can be modified either to deliver cash-value credits or to create a matching incentive based on SNAP spending. The latter model has successfully been piloted in Massachusetts through the Healthy Incentives Pilot (HIP). In this pilot program, SNAP beneficiaries earned 30 cents for every EBT dollar spent on a list of healthy foods. Benefits accrued automatically to the EBT account and could be used with the same card.

- Benefits
  - Seamless and easy for beneficiaries to use.
  - Once operational, requires less processing effort at the point of sale than vouchers or gift cards.
  - Scalable for supermarkets, which can make one software change for all locations.
  - Leverages existing EBT payment infrastructure and technology systems.
  - Enables automated data collection on purchase amounts with little effort—high economies of scale.
- Challenges
  - Limits beneficiary population to SNAP unless a major expansion of EBT is undertaken.
  - Provides little tangible feedback on reward accrual, which can limit behavior change.
  - Requires significant technology upgrades, especially for small grocery stores and farmers' markets.
  - Incurs large up-front implementation cost.
  - Requires ongoing effort from grocery stores to maintain food lists (large stores) or train cashiers (small stores).
  - Provides no automated tracking of item-level purchases.
  - Requires USDA waiver to modify SNAP program.
- Dependencies
  - Beneficiaries: Effectively restricts target population to SNAP.
  - Vendors: Works best for supermarkets but presents challenges for small grocery stores.

Option 6: New Debit Card

An innovative, technology-intensive option is for a city to create a new debit card to deliver food benefits. Unlike the EBT option above, this debit card would not be dependent on SNAP infrastructure and could therefore be used to reach a broader array of beneficiaries. Some flexibility in benefit design is possible: funds could be added to the debit card up-front, or the city could tie debit card incentive funding to another form of spending on healthy foods, such as EBT purchases. To date, no program has successfully implemented debit cards for item-level purchases for a wide array of beneficiaries. However, initiatives such as CHAMPSS in Johnson County, Kansas have recently demonstrated the feasibility of using debit cards to deliver certain food benefits to a targeted beneficiary population with a limited vendor network.[107, xx]

[xx] The CHAMPSS program allows a beneficiary population of 1,600 seniors to purchase prepared meals at one of three locations of Hy-Vee, a local supermarket. The debit cards used by this program are loaded with a number of meals rather than a dollar amount for item-level purchases, so the technology is not directly applicable to a healthy food purchasing supplement program.

- Benefits
  - Can be used for all target populations, not just SNAP.
  - Easy to use, since most individuals are already familiar with debit card technology.
  - Easy to distribute: can be given out once and periodically reloaded with benefits.
  - Once operational, requires less processing effort at the point of sale than vouchers or gift cards.
  - Can leverage existing card payment infrastructure.
  - Enables automated data collection on purchase amounts with little effort—high economies of scale.
- Challenges
  - Requires significant up-front investment and effort to create cards and a database that underlies their use and generates benefits.
  - Requires extensive effort (and funding) to set up a payment network that accepts the new card—i.e., a pathway for transactions.
  - Complicates the implementation of a matching incentive, which would need to be coordinated with spending of other funds (like EBT).
  - Requires training and outreach for both vendors and participants on the new payment system.
  - Cannot restrict item-level purchases to fruits and vegetables at all types of vendors, so food restrictions could require manual enforcement.
  - Provides no automated tracking of item-level purchases.
- Dependencies
  - Beneficiaries: Difficult to distribute unless participants regularly appear in person—otherwise, incurs mailing costs.
  - Benefit design: Hard to restrict purchases to fruits and vegetables. Easier to provide cash-value credits than a matching incentive.
  - Vendors: Works best for supermarkets but presents challenges for small grocery stores and farmers' markets.

Option 7: New WIC-Style Card

A final option is to deliver benefits on a WIC-style EBT card. This technology, currently used by WIC programs in states like Michigan and Kentucky, provides benefits in terms of item quantities rather than dollar amounts. It allows for automated tracking of item-level purchases and can support purchasing restrictions on target items, such as processed foods.

The implementation challenges for a WIC-style card greatly exceed those for a debit card. Because WIC EBT technology has not been implemented by any model programs and because its technological challenges greatly exceed those of a debit card implementation, this technology solution is currently not considered feasible for a city like San Francisco. However, as California transitions to an EBT delivery for its own WIC program, the city may consider leveraging any newly available technology to support its healthy food purchasing supplement program.

Further Infrastructure Considerations

Beyond benefit delivery mechanisms, two broader trends in payment technology are relevant to the design of a healthy food purchasing supplement program. They are discussed below.

Mobile Market Payment

As card technologies including EBT become more widely distributed, there is growing interest in enabling electronic transactions outside of traditional settings like supermarket registers. A leading technology in mobile payments for nutrition benefits is Mobile Market+, a product of the Novo Dia Group. This technology consists of a card reader and receipt printer that attached to an iPhone, iPad, or iPod. A mobile app then allows vendors to input purchase amounts and run transactions. Mobile Market+ allows small retailers—both farmers' markets and grocers—to accept EBT, WIC, debit, and credit transactions over a secure channel and generate receipts.

Several innovative pilot programs have used Mobile Market+ in recent years. The HIP program used Mobile Market+ devices as one way of accepting EBT payments at several farmers' markets and mobile markets. On a larger scale, Double Up Food Bucks has deployed nearly 300 Mobile Market+ devices across 26 markets in Michigan as part of an electronic market incentives pilot. At participating farmers' markets, the devices can either be used at a central market stand in place of an EBT terminal, or they can be distributed to individual farmers. Currently, 80% of deployed Mobile Market+ devices are used at the individual farmer level.[108]

Mobile Market+ technology has a number of advantages over traditional payment systems for food benefits:

- Allows EBT cards and other payment methods to be used directly at farmers' markets, mobile markets, small grocers, etc. without the need for a secondary currency (e.g., vouchers or tokens).
- Creates seamless, easy experience for participants.
- Has potential for use with populations beyond SNAP, if sign-up and verification are done appropriately.
- Makes use of iPhone or iPad technology that vendors may already possess.
- Allows farmers who sell at multiple farmers' markets to establish a single account and channel for reimbursement.
- Reduces potential for fraud at farmers' markets by making the food and payment transactions both take place at the farmer level.
- Allows real-time reporting of incentive accrual and redemptions, removing the need for end-of-day reconciliation between farmers and market managers.
- Can support item-level restrictions through a centrally managed approved product list (APL).
- Enables geographic restrictions on spending through geolocation.

One commonly cited concern is that the use of Mobile Market+ places the burden on transaction handling on individual farmers, who may not be comfortable with the new technology. However, vendors are offered training on the product, and no significant problems with transaction handling have been reported by Mobile Market+ users to date.

Cost can be a significant barrier to the adoption of Mobile Market+ technology. The cost of one full start-up package is approximately $2,000; this includes an iPhone, two years of unlimited data, a Mobile Market+ device with a receipt printer, one year's licensing fee, and one year's merchant agreement with a payment processor. Vendors are then liable for ongoing transaction costs.[xxi] Recently, though, the USDA has launched the MarketLink program to help vendors transition to mobile payment technology.[109] This program has the potential to defray some of the transition costs.

[xxi] 15 cents per SNAP transaction; 15 cents plus 1.79% per credit/debit transaction.

Online Payment

Certain vulnerable populations, especially seniors, often have mobility issues that create barriers to purchasing food at grocery stores or farmers' markets. One creative technology solution is to enable online purchasing of healthy foods. This solution can function as an add-on to an existing delivery mechanism like EBT or a debit card.

In 2012, the delivery retailer FreshDirect launched a pilot to allow SNAP recipients in two New York zip codes to make EBT purchases online.[110] The pilot offers clear benefits in terms of food access, ease of use, and stigma reduction.

However, online payment is not effectively scalable at this time, particularly for EBT card users. Current payment technology does not support online PIN entry—a requirement for EBT card use. In the FreshDirect pilot, the retailer issued a pre-authorization for the funds, assuming a measure of risk up-front. Payments were confirmed upon delivery, when recipients swiped their EBT cards at a mobile terminal.[111] While this model is feasible with one retailer and a small number of participants, it creates operational challenges at a larger scale. Still, as payment technology evolves to support online PIN entry, online payment represents an exciting area for technological innovation for benefit programs.

In summary, the technology options available for a healthy food purchasing supplement program range from very simple to highly complex. A major tradeoff incurred in each case is one between ease of implementation of ease of automated data collection and tracking. Delivery mechanisms like vouchers and tokens require little up-front investment but necessitate staff time on the back end for data collection. In contrast, EBT or other debit systems provide automated tracking but incur significant implementation costs.

When the landscape of innovative benefit technology is considered broadly, two facts stand out. First, technology implementations are very expensive and require significant up-front investment. Second, innovative approaches such as HIP have focused on specific subpopulations to date—almost exclusively SNAP recipients. If San Francisco, or any other city, wishes to target its healthy food purchasing supplement program more broadly, it must consider the whole range of technology options, including the simplest.

2.6 Administration

Finally, a central component of any program is the administrator, a role that a number of entities can play. Generally, administrators are responsible for raising money, delivering benefits, marketing the program to potential vendors and beneficiaries, evaluating the program, and tracking participation. This section discusses four types of organizations that administer programs around the country. Importantly, a number of programs are partnerships run by multiple organizations, though one organization typically takes on a central coordinating role.

Figure 7: Administration Options

Administrative Options		
#	Administrative Option	Example Programs
1	**Government agency**	• Health Bucks • Healthy Incentives Pilot (HIP) • SNAP+ (partnership)
2	**Community organization**	• Double Up Food Bucks (DUFB) • Greenbucks • Kansas City Beans&Greens • Market Match (New Orleans) • VeggieRx • Market Match (PCFMA) (partnership) • Fruit and Vegetable Prescription (FVRx) (partnership)
3	**Industry group**	• Market Match (PCFMA) (partnership) • SNAP+ (partnership) • Florida Organic Growers Association (Wholesome Wave Double Value Coupon program state agency)
4	**Health plan or provider**	• UCSF Pilot • Market Bucks (Blue Cross Blue Shield) • HealthyFood Program • Independent Health Nutrition Program • Fruit and Vegetable Prescription (FVRx) (partnership)

Option 1: Government agency

Surprisingly few programs interviewed are run by local government agencies. HIP, SNAP+, and Health Bucks fall into this category. Both SNAP+ and Health Bucks contract with industry groups to assist in the administration of the program.

- Benefits
  - Increases accountability and transparency.
  - Increases political feasibility, especially because some may be concerned about confidentiality of beneficiary data.
  - Could leverage existing relationships with vendors, especially for grocery stores.
  - Allows access to existing data on eligibility.
  - Allows access to lists of potential beneficiaries for outreach.
- Challenges
  - May face higher administrative costs.
  - Requires a program to meet and follow more protocols and regulations. Specifically, programs at grocery stores may require a waiver from the federal government to target certain SNAP participants and other beneficiaries.

- Decreases feasibility due to politics, since some of the options presented may be politically very difficult to implement (e.g., selection of acceptable healthy food list or inclusion of a cash-back option for purchases).
- Dependencies
  - Benefit design: Must work within existing infrastructure.

Option 2: Community organization

Most of the surveyed programs are run, at least in part, by a community organization. These community organizations range from foundations to social service organizations to organizations devoted solely to coordinating a healthy food purchasing supplement program. For example, Kansas City Beans&Greens is currently run by a local health foundation, which funds several health-related initiatives. Double Up Food Bucks is run by Fair Food Network, which works on a variety of healthy food access initiatives. In California, local farmers' markets partner with the Ecology Center, a local non-profit, to run Market Match at numerous markets.

- Benefits
  - May face lower administrative costs than a government administrator.
  - Can leverage private money and allow for greater funding flexibility. For example, Double Up Food Bucks in Michigan relies on smaller donations from a number of sources.
  - Increases flexibility in benefit design and administration.
  - Increases flexibility in target population.
  - Leverages existing providers, vendors, and infrastructure.
- Challenges
  - Decreases accountability, as compared to a government administrator.
  - Requires government oversight, if funded with government money, which would cost some government time and money.
  - Limits access to beneficiary data, since it could only be obtained indirectly.
- Dependencies
  - None. Indeed, this administration option affords the greatest flexibility for decisions about program parameters.

Option 3: Industry group

Several programs are run exclusively or partly by industry groups like grocers' or farmers' market associations. For example, SNAP+ partnered with a grocery store association to recruit vendors and provide central administrative support. Locally, the Ecology Center, in partnership with the Pacific Coast Farmers' Market Association (PCFMA), the Agricultural Institute of Marin, and the Mission Community Market manages the Market Match program at several farmers' markets. A pilot in Florida through the Wholesome Wave Innovation Lab is being administered by the Florida Organic Growers Association.

- Benefits
  - May face lower administrative costs than a government administrator due to existing infrastructure and capacity.
  - Can leverage private money and allow for greater funding flexibility.
  - Increases flexibility in benefit design and administration.
  - Increases flexibility in target population.

- Leverages existing providers, vendors, and infrastructure.
- Challenges
  - Decreases accountability, as compared to government administrator.
  - Requires government oversight, if funded with government money, which would cost some government time and money.
  - Limits access to beneficiary data, since it could only be obtained indirectly.
- Dependencies
  - Vendors: Works with only a single type of vendor if one particular type of organization runs the program.

Option 4: Health plan or provider

There are also several programs run by either health plans or health providers. Often such programs are administered in partnership with community organizations and have a strong focus on health outcomes. In the US, VeggieRx, FVRx, and Market Bucks use this model. Internationally, a large health insurer administered the HealthyFood Program in South Africa.

- Benefits
  - Leverages existing list of clients with ID cards and pre-determined eligibility.
  - Brings access to the health statuses of beneficiaries and ability to target interventions appropriately.
  - Enables access to patients on a regular basis and can help track health progress. Even if patient visits are not a key program component, health plans or providers can utilize surveys as a requirement for program participation and benefit accrual.
  - Helps to leverage additional sources of funding (e.g., community benefit dollars).
  - In the case of larger insurers, may facilitate the formation of industry association or supermarket partnerships (in comparison with a government or non-profit administrator).
  - Is not subject to government regulations or reporting requirements.
- Challenges
  - Decreases scalability, because difficult to expand beyond initial population.
  - May not have administrative capacity for tracking large populations.
  - Do not have existing relationships with grocers, markets, or retailers.
- Dependencies
  - Benefit design: Makes the most sense for a program that focuses on health outcomes or that incorporates some sort of nutrition education or physician outreach.

2.7 Summary

Healthy food purchasing supplement programs can be analyzed using a framework with five major parameters: beneficiaries, benefit design, vendors, technology, and administration. This section drew on local program interviews and existing literature to construct a comprehensive "menu" of options within each parameter. Every option was evaluated in terms of its programmatic benefits, challenges, and dependencies on other design choices. As a whole, the section is intended to present a thorough overview of the program design landscape and to serve as the analytical basis for designing new programs.

3. Case Studies of Existing Programs

Whereas the previous section drew on existing program data to isolate and discuss program parameters separately, this section aims to provide an overview of the food benefit design landscape through case studies of existing programs. Fifteen of the case studies in this section are drawn directly from program interviews; the remaining two (HealthyFood and Independent Health) come from second-hand literature and are included to highlight unique program features.

Double Up Food Bucks: Farmers' Market Program
Michigan
2009 – Present

Program Highlights:
BENEFICIARIES: 89,428 non-unique SNAP transactions (2012)
BENEFIT DESIGN: $1 for $1 match, up to $20 per market day
VENDORS: Over 90 farmers' markets (2013)
TECHNOLOGY: Token system at most markets; card pilots in City of Flint and Kent County
ADMINISTRATION: Fair Food Network
BENEFIT COST: $750,000 in 2012
ADMINISTRATIVE COST: Approximately $750,000 (15% personnel)
FUNDING: Private foundations and funders; US Department of Agriculture (SNAP-Ed)
OUTCOMES: Has greatly increased SNAP redemptions at farmers' markets—highest in the Midwest

Program Overview/Goals
Fair Food Network's farmers' markets program is one of the largest in the country, with a dual goal of incentivizing healthy food choices and benefiting local farmers. Fair Food Network (FFN) also strives to be a model program and is one of the more advanced programs in terms of technology experimentation. FFN also advocates nationally for its model.

Design and Administration
FFN runs the program in coordination with local farmers' market associations. FFN provides statewide outreach, funding administration, and technical assistance. At the beginning of each season, Fair Food Network distributes money for the match to market managers based on expected redemption rates; this amount this then adjusted toward the end of the season as needed. Market Managers pass the money on to the farmers. Most markets use tokens, but FFN is experimenting with electronic cards in two counties. DUFB is a one-for-one match up to $20 per market day, which for most markets is only once a week. The match can only be used for fresh fruits and vegetables grown by Michigan growers.

Beneficiaries and Vendors
All SNAP recipients are eligible for the program. There were 89,428 SNAP transactions in 2012, and there have been over 200,000 transactions since the program began in 2009. DUFB has scaled up quickly each year in terms of participants and vendors. This was possible largely because of its partnerships with local farmers' market associations, which allowed the program to scale to entire regions at a time. DUFB has also benefited from the fact that all the farmers' markets already accepted SNAP. Currently, over 90 markets participate, with an approximate total of 1,000 farmers.

Evaluation and Outcome
DUFB released an extensive evaluation report in 2012, detailing the number of vendors, transactions, SNAP sales, redemption rates, etc. FFN complies this information at the state level after collecting it locally. Administrative data is reported by the local farmers' markets. FFN collects surveys from a few hundred program participants, farmers, and farmers' markets to assess changes in business, food consumption, etc. FFN has also contracted with JFM consulting to conduct a 3-year program evaluation.

Successes and Challenges
DUFB is a model program in terms of its huge success in scaling up so quickly and efficiently. DUFB's electronic card pilot at farmers' markets is also worth noting, and it could provide valuable insight into the technology's feasibility and cost. For the most part, DUFB only focuses on SNAP, so lessons learned for other populations may be limited.

Double Up Food Bucks: Grocery Store Pilot
Detroit, Michigan
2013 – Present

Program Highlights:
BENEFICIARIES: SNAP participants
BENEFIT DESIGN: $10 matching incentive for at least $10 spent on fruits and vegetables
VENDORS: Three independent grocery stores
TECHNOLOGY: Gift card
ADMINISTRATION: Fair Food Network
BENEFIT COST: Not provided
ADMINISTRATIVE COST: Not provided
FUNDING: Private foundations and funders; US Department of Agriculture
OUTCOMES: Too early to determine

Program Overview/Goals
Fair Food Network (FFN) has run a similar farmers' market matching program for years to incentivize fruit and vegetable consumption among SNAP participants and to support local farmers. However, FFN started a grocery pilot because grocery stores are where most SNAP recipients shop. FFN is hoping to test and pilot the system at a few grocery stores and then scale up in the next few years. Indeed, this is the organization's primary focus in the future.

Design and Administration
FFN administers the program and provides all needed support. Unlike the farmers' market program, the grocery store pilot offers a $10 gift card to participants after they spend at least $10 on fruits and vegetables. Grocery stores do not need any special technology. The match, which is distributed by cashiers, can only be spent on Michigan-grown fruits and vegetables. Since this is a pilot project, FFN has been heavily involved in the local administration, training of cashiers, tracking of redemptions, etc.

Beneficiaries and Vendors
All beneficiaries are currently SNAP participants. DUFB anticipates that 5,000 people will participate in the grocery store pilot, but exact numbers have not been released yet. Currently, only three grocery stores are participating in the pilot. All three are independently owned stores, and all are in Detroit, which has historically not allowed chain grocery stores within city limits.

Evaluation and Outcome
DUFB will conduct its own evaluation of the program along with an evaluation of the entire DUFB program (see the DUFB: Farmers' Market Program summary).

Successes and Challenges
FFN sees grocery store programs as the future of matching incentives, and the organization is working hard to figure out what works best. While the participation of only three stores indicates a small pilot, the stores are concentrated, making for easier outreach. FFN did suggest that new programs consider working with a chain supermarket, pointing to challenges in working with several independent stores as opposed to a single central administrative office that could pass information to individual stores.

Double Value Coupon Program (DVCP)
Various locations in 24 states and DC
2008 – Present

Program Highlights:
BENEFICIARIES: 39,000 unique SNAP, WIC/Senior FMNP, and/or WIC CVV recipients
BENEFIT DESIGN: Customizable matching incentives for SNAP-eligible foods (or F&V subset)
VENDORS: 306 farmers' markets with 3,240 total farmers; other direct retail venues (CSA, etc.)
TECHNOLOGY: EBT terminals; farmers' market tokens; some vouchers for WIC and FMNP
ADMINISTRATION: Wholesome Wave + local partners
BENEFIT COST: $884,800 in incentive dollars across all program types in 2012
ADMINISTRATIVE COST: Varies by program, but never greater than benefit cost
FUNDING: Federal grants; nutrition foundation grants; hospital community benefit; local donors
OUTCOMES: Has expanded use of federal benefits at farmers' markets to $2.3M (redemptions plus incentives) in 2012

Program Overview/Goals
DVCP is designed to offer incentives for individuals on food assistance to spend their funds on local healthy foods. It supports healthy eating among participants and generates revenue for local farmers. The Wholesome Wave model is designed to be simple, easy to replicate, and flexible enough to meet the needs of local partners.

Design and Administration
Individuals who spend federal nutrition benefits at farmers' markets or other direct retail venues (such as CSAs) receive matching incentive funds. Incentives can be tailored or capped to fit local budget constraints as long as they do not exceed a $1 for $1 match. Most programs distribute incentives in the form of farmers' market tokens or paper script. Incentives are given out by market administrators or volunteers and redeemed with individual farmers, who are reimbursed by market managers.

Beneficiaries and Vendors
The beneficiaries are current recipients of federal nutrition benefits. 67% of beneficiaries redeem SNAP benefits; 20% redeem WIC FMNP benefits; 9% redeem Senior FMNP benefits; and the remainder redeem WIC CVV. Many participating markets offer the incentive for SNAP recipients only.

Evaluation and Outcome
Wholesome Wave requires standardized data tracking and reporting from local program partners. In addition, surveys are administered to farmers and market managers to assess their satisfaction with the program. Since 2009, DVCP has increased the use of federal nutrition benefits (granted amounts plus incentives) at participating markets from $330K to $2.3M while increasing sales for local farmers.

Successes and Challenges
The program has successfully attracted recipients of federal benefits to farmers' markets and created incentives for them to consume local, healthy foods (vs. supermarket-bought items). It has also proven popular with participating farmers. The model is challenging to expand beyond farmers' markets due to the technology used, though there are feasibility studies and a few retail pilots currently underway. Incentives are only available for individuals already receiving federal nutrition benefits. No health outcomes are measured.

Fruit and Vegetable Prescription Program (FVRx)
Various locations in seven states and DC
2010 – Present

Program Highlights:
BENEFICIARIES: 380 households with overweight or obese children or pregnant women
BENEFIT DESIGN: Prescriptions totaling $1 per person per day distributed by primary care providers to be spent on fresh, local fruits and vegetables
VENDORS: 26 farmers' markets
TECHNOLOGY: Paper prescription vouchers redeemed for farmers' market tokens
ADMINISTRATION: Wholesome Wave + local physicians and markets
BENEFIT COST: ~$121,000 spent by participating households in 2012
ADMINISTRATIVE COST: Much higher than benefit cost due to physician and nutritionist time
FUNDING: Foundation grants; local donors
OUTCOMES: 55% of participants reported increased daily F&V consumption at final visit; 38% of child patients showed a decrease in BMI

Program Overview/Goals
FVRx is a partnership between primary care providers and farmers' markets. The program focuses on improving health outcomes among overweight children and pregnant women at risk of developing diet-related diseases through nutrition education and increased consumption of local, healthy foods. A secondary goal is to provide additional revenue to local farmers.

Design and Administration
Households are recruited by clinical teams to participate in a 4 to 6-month program focused on healthy eating and nutrition education. Households meet monthly with physicians and nutritionists to discuss health goals and track progress. Providers issue paper prescriptions for $1 per person per day, which must be spent on fresh fruits and vegetables. Prescriptions are redeemed for tokens at participating markets.

Beneficiaries and Vendors
Beneficiaries are drawn from existing patient populations on the basis of health risks (high BMI) among children or pregnant women in the household. 380 households and 1,570 individuals participated in the program in 2012. 49% of participating households received SNAP and 82% were on Medicaid. 26 farmers' markets partner with participating clinics to accept prescription vouchers. FVRx was piloted at two hospitals in NYC in 2013, and a grocery store pilot is being implemented in Minnesota in 2014.

Evaluation and Outcome
Clinics track BMI and fruit and vegetable consumption at every visit. Participants fill out comprehensive surveys on health and nutrition before and after completing the program. Farmers' markets track prescription redemptions. 58% of patients completed the intervention in 2012, making at least 3 clinic visits and 6 farmers' market visits. A majority of participants who completed the program reported increases in daily fruit and vegetable consumption, and over a third of overweight children showed decreases in BMI (by an average of 0.93 points).

Successes and Challenges
By focusing on targeted education and increased access, the program has successfully increased daily consumption of healthy foods among participants and decreased BMI among a significant proportion of enrolled children. Another program strength is the focus on rigorous data collection and analysis. However, the program serves a limited number of participants and incurs high administrative costs due to the participation of primary care providers. Wholesome Wave is currently exploring other models that could have lower administrative costs.

Greenbucks
New Bedford, Massachusetts
2005 – 2009

Program Highlights:
BENEFICIARIES: 1,300 families on any form of government assistance
BENEFIT DESIGN: $2.50 cash-value credit voucher (no cap on number)
VENDORS: One farmers' market
TECHNOLOGY: Paper voucher
ADMINISTRATION: United Way of Greater New Bedford
BENEFIT COST: Approximately $35,000 for the first year (scaled down thereafter)
ADMINISTRATIVE COST: Approximately $13,000 per year
FUNDING: State grant of $140,000 for entire four-year program
OUTCOMES: Successfully attracted a farmers' market to a low-income neighborhood

Program Overview/Goals
Greenbucks was one of the first farmers' market supplement programs. Administered by the United Way of Bedford, the program simply aimed to encourage area residents to buy food from a new farmers' market. Indeed, the creation of the program was one of the central reasons the farmers' market agreed to come to New Bedford; once the program ended, the farmers' market disappeared soon after because there were no further fundraising efforts.

Design and Administration
United Way provided central administration such as managing the grant, reimbursing farmers, printing the vouchers, and distributing them to area non-profit organizations, which in turn handed them out to low-income residents. The program was designed this way to limit administrative costs and to ensure beneficiary privacy. Vouchers were worth $2.50, an amount that was developed with the farmers based on the prices of their goods. Vouchers were good for anything at the market that was considered food.

Beneficiaries and Vendors
Greenbucks is especially notable because anyone receiving any type of government assistance was eligible. This made for very little confusion about who was eligible. Indeed, many of the local non-profits did not require proof because they had an existing relationship with the client and were already aware of any type of government assistance. Vouchers could only be redeemed at one market that had 12 farmers. United Way recruited volunteers and paid for a market manager to help with on-site administration.

Evaluation and Outcome
United Way tracked the number of vouchers given out and the number of vouchers redeemed, disaggregated by each local non-profit (using a unique number on each voucher for each organization). Since each farmer submitted his own vouchers for reimbursement, United Way could also track at which stands the vouchers were being redeemed, though it could not track specific items bought. Through surveys, United Way conducted a customer evaluation of the whole market each year.

Successes and Challenges
Greenbucks was quickly and easily able to implement a broad-reaching program and effectively encourage a farmers' market to come to a neighborhood. It is an excellent example of a low-administrative cost program, since key program features—specifically, the flat voucher and limited eligibility requirements—allowed United Way to build off existing local non-profit resources and connections to low-income populations. This design, however, did make it difficult to know who exactly was impacted by the program, and it reduced beneficiary investment in healthy foods by offering cash-value credits rather than a matching incentive.

Health Bucks
New York City, NY
2005 – Present

Program Highlights:
BENEFICIARIES: Approximately 300,000 coupons distributed to low-income residents (2013)
BENEFIT DESIGN: $2 vouchers distributed as cash-value credits by CBOs and as matches for $5 spent at farmers' markets
VENDORS: 141 farmers' markets
TECHNOLOGY: Paper vouchers
ADMINISTRATION: NYC Department of Health and Mental Hygiene (DOHMH)
BENEFIT COST: $510,000+ (2012)
ADMINISTRATIVE COST: Not provided
FUNDING: Mostly city funded
OUTCOMES: More than $1 million in Health Bucks redeemed since 2005; helped to generate more than $1 million in sales at farmers' markets in 2012

Program Overview/Goals
Health Bucks is one of the oldest and largest healthy food purchasing supplement programs in the country. The central goal of Health Bucks is to address inequities in health by improving fruit and vegetable consumption among low-income New Yorkers through an expansion of purchasing power.

Design and Administration
Health Bucks uses paper vouchers, each worth $2, which can be spent on fresh fruits and vegetables at any farmers' market in the City. There is no limit on how many Health Bucks an individual may use. The New York City Department of Health and Mental Hygiene (DOHMH) administers Health Bucks, coordinating all central administrative tasks. Satellite DOHMH offices also help to promote the program. DOHMH contracts with the Farmers' Market Federation of New York, which processes the vouchers and reimburses individual farmers' markets centrally.

Beneficiaries and Vendors
Since 2012, all NYC farmers' markets have participated in the program. Health Bucks is unique in that many individuals can participate in the program because the vouchers are distributed in several ways. SNAP participants can earn Health Bucks by spending $5 of their SNAP money at farmers' markets. Other low-income New Yorkers can earn vouchers by attending nutrition programs run by DOHMH. Vouchers are also distributed by community-based organizations that apply to get the free Health Bucks, and in turn distribute the vouchers to participants in a community program related to health.

Evaluation and Outcome
Each year, Health Bucks releases an annual report on the program, highlighting data on redemption rates, workshops, SNAP sales, and the impact on farmers' markets. Barcodes on the paper vouchers and administrative logs allow for much of this tracking and data collection. Since 2005, more than $1 million in Health Bucks has been redeemed. Health Bucks helped to generate over $1 million in sales at farmers' markets in 2012.

Successes and Challenges
Health Bucks has unique and effective partnerships with industry groups, which streamline reimbursement, and with community-based organizations, which distribute coupons. These partnerships build additional support for the program. Starting in 2013, Health Bucks also began to allow outside groups to buy Health Bucks, which could then be distributed in communities (instead of simply applying for free Health Bucks). DOHMH sees this pay-for-voucher mechanism as a key way to leverage outside resources to support the program.

HealthyFood Program*
South Africa
2009 – Present

Program Highlights:
BENEFICIARIES: Enrollees in certain Discovery health insurance plans who participate in the health promotion program; in 2012, 330,000 individuals were enrolled[112]
BENEFIT DESIGN: Up to 25% cash-back rebate incentive on eligible food items from several food categories: fruits and vegetables, protein-rich foods, dairy and dairy alternatives, legumes and lentils, and oils/spreads/nuts/seeds[113]
VENDORS: Pick n Pay supermarkets (~800 locations country-wide)[114]
TECHNOLOGY: Rebate is delivered monthly to a specialty Visa card or to a bank account specified by the participant[115]
ADMINISTRATION: Discovery (health insurance provider)
BENEFIT COST: Unknown
ADMINISTRATIVE COST: Unknown
FUNDING: Private health insurer
OUTCOMES: HealthyFood Program participation is associated with greater consumption of fruits, vegetables, and whole grains and lower consumption of foods high in sugar and salt, fast food, fried foods, and processed meats[116]

Program Overview/Goals
According to program materials, the overarching goal is to help participants make healthier food choices and achieve a more balanced diet.[117]

Design and Administration
The cash-back rebate on purchases of eligible food items is offered to enrollees of Discovery insurance plans who opt to participate in the Vitality program, a health promotion initiative. Participants immediately are eligible to receive a 10% cash-back rebate, which is then increased to 25% after the completion of an online health survey. The rebate is assessed on purchases of healthy foods, up to $500 a month for a household and $250 for an individual. The rebate is deposited monthly on a specialty Visa card or in a participant-selected bank account. The eligible food items were selected by a panel of nutritionists, physicians, and behavioral scientists and published in a catalogue that is regularly updated. [118]

Beneficiaries and Vendors
All Vitality initiative members are eligible for the program and activate the benefit by phone or online. As of 2013, 260,000 households across all nine provinces of South Africa were enrolled. Over 800 supermarkets of the Pick n Pay group participate in the program.[119]

Evaluation and Outcome
There have been two major studies examining the impacts of this program on purchasing and consumption behavior, both showing greater consumption of healthy foods compared to the control. See Sturm et. al 2013 and An et al. 2013 for additional details.

Successes and Challenges
The HealthyFood Program is the largest healthy food purchasing supplement program operating worldwide, with over 330,000 enrollees.[120] It is unknown whether the results may be generalizable to other populations, but it suggests that healthy food purchasing supplement programs can be effective at scale and that price does impact purchasing behavior surrounding healthy foods.

*Information identified through secondary sources. Interview with program not conducted.

Healthy Incentives Pilot (HIP)
Hampden County, Massachusetts
November 2011 – December 2012

Program Highlights:[xxii]
BENEFICIARIES: 7,500 households receiving SNAP in Hampden County, MA
BENEFIT DESIGN: Financial incentive of 30 cents for each SNAP dollar spent on healthy fruits and vegetables (based on WIC cash value voucher guidelines); capped at $60 per month per household
VENDORS: 72 distinct retailers, including supermarkets, small stores, and farmers' markets
TECHNOLOGY: Upgraded SNAP software generating incentives for EBT purchases of target foods
ADMINISTRATION: MA Department of Transitional Assistance and USDA/FNS
BENEFIT COST: Estimated at $325,000 over 14 months
ADMINISTRATIVE COST: Estimated at under $5M for all state implementation and operations costs
FUNDING: $20M pilot program funding from 2008 Farm Bill
OUTCOMES: Interim results showed that HIP participants earned average monthly incentives of $3.64 and consumed one-fifth of a cup-equivalent more fruits and vegetables per day than non-participants

Program Overview/Goals
The primary goal of HIP was to test whether providing a financial incentive to SNAP households would encourage them to purchase more healthy fruits and vegetables. A further goal of the pilot was to assess the feasibility of implementing the technology solution and operational changes needed to generate SNAP incentives at retail vendors.

Design and Administration
Participants automatically earned incentives of 30 cents for every SNAP dollar spent on target fresh, canned, dried, and frozen fruits and vegetables at participating retailers. The list of allowable foods was based on existing WIC guidelines for cash value vouchers, with some exceptions. The development-intensive implementation involved close partnerships with technology contractors to create a benefit that was relatively easy to administer, seamless for participants, and feasible for vendors.

Beneficiaries and Vendors
The participants were 7,500 SNAP households randomly selected from the 55,000 SNAP households in the county. Three waves of participants received HIP benefits for 12 months each. 72 vendors (and a high of 128 unique locations) participated in HIP, including supermarkets, corner stores, and farmers' markets. While only 20% of eligible retailers participated, they represented 50% of all SNAP redemptions in the county.

Evaluation and Outcome
Over $10M of the original grant was allocated toward comprehensive data collection and evaluation. The technology solution enabled easy data collection from each point-of-sale terminal. Two-thirds of HIP households earned incentives in a given month, and among those households, the average monthly incentive amount earned was $5.55. Estimated increases in fruit and vegetable consumption represented a difference of 25% in consumption over control group members.

Successes and Challenges
HIP succeeded in creating a technology-based solution that incentivized greater consumption of healthy foods among participants. The design and administration appear to be scalable, especially for large retailers. An emphasis on data collection allowed for rigorous evaluation of financial and nutrition outcomes. Retailer recruitment proved more challenging than expected. The program's narrow tailoring to SNAP beneficiaries and infrastructure presents a possible barrier for expansion to other populations.

[xxii] The information presented here was gleaned from the HIP Interim Report and a detailed program interview. As the HIP Final Report has not yet been released by the USDA, all information presented here is unofficial. All released reports and related HIP documents are available at: http//www.fns.udsa.gov/snap/healthy-incentives-pilot and www.mass.gov/dta/hip.

Independent Health Nutrition Program*
Various locations in western New York State
Jan 2014 – Present

Program Highlights:
BENEFICIARIES: Enrollees in an Independent Health insurance plan offering the nutrition benefit
BENEFIT DESIGN: $1 credit for every $2 spent on fresh produce at TOPS market locations, received as a delayed rebate incentive on a quarterly gift card
VENDORS: TOPS market locations in New York State
TECHNOLOGY: Gift card
ADMINISTRATION: Independent Health (health insurance provider)
BENEFIT COST: Unknown
ADMINISTRATIVE COST: Unknown
FUNDING: Private health insurer
OUTCOMES: Unknown

Program Overview/Goals
The nutrition benefit is offered by a health insurance provider, Independent Health, with the goals of improving health "by making access to fresh fruits and vegetables affordable, and by keeping its members engaged and well informed about the benefits of proper nutrition and reduced risk factors."[121]

Design and Administration
Independent Health has partnered with TOPS Friendly Market stores in Western New York to offer this benefit. Participants receive a $1 credit for every $2 spent on fresh produce purchased in the TOPS stores, and this benefit is accumulated and distributed quarterly on a rewards card redeemable on any item in store except tobacco products. The amount earned per individual is tracked on store receipts similar to the way gas and other loyalty benefits are; the benefit is capped at $1,000 annually for families and $500 for individual plans.[122]

Beneficiaries and Vendors
Enrollees in the majority of new individual and small group plans offered in 2014 will be able to utilize this benefit. It will also be available as an add-on to large employer plans. The rebates accrue only based on purchases at TOPS Friendly Markets and are redeemable only at those locations.

Evaluation and Outcome
The program has only just begun, so evaluation data are not yet available.

Successes and Challenges
Due to time constraints, an interview was not conducted with the program administrators for this report; thus, the successes and challenges are not well understood at this time.

*Information identified through secondary sources. Interview with program not conducted.

Kansas City Beans&Greens Program™
Kansas City Metro Area (Kansas and Missouri)
Spring 2010 – Present

Program Highlights:
BENEFICIARIES: 25,000 SNAP and 1,000 Senior FMNP beneficiaries
BENEFIT DESIGN: $1 for $1 matching incentive toward the purchase of any goods that meet SNAP or Senior FMNP requirements
VENDORS: 16 farmers' markets
TECHNOLOGY: Tokens
ADMINISTRATION: Menorah Legacy Foundation
FUNDING: Mostly private foundations, corporations, public funds, individual donations
BENEFIT COST: Approximately $175,000 per year
ADMINISTRATIVE COST: Estimated at $175,000 per year
OUTCOMES: $2 million in economic impact for past four years; expanded to 16 markets

Program Overview/Goals
Beans&Greens was founded by a local health foundation with the goal of "enhancing diets with local produce by making healthy local produce both more accessible and affordable." Founded and currently operated by the Menorah Legacy Foundation, Beans&Greens is funded mostly with private money and will be transitioning administration of the program to a different non-profit in the next two years. State and federal funding opportunities will be available in the next five years.

Design and Administration
Beans&Greens provides a $1 for $1 match at local farmers' markets, with a weekly cap of $25 for SNAP and $30 for Senior FMNP. Money is earned by spending SNAP or SFMNP money at the farmers' markets on program-eligible foods, and the match, in the form of a wooden token, can be used for anything at the farmers' market—including prepared foods. The administrator provides small grants to farmers' market managers, who distribute the tokens, while Menorah is responsible for the central tracking and support with 2.5 staff FTEs (a full-time program manager, a part-time fundraiser, a part-time accountant, and a part-time administrator). Beans&Greens's total budget of $350,000 comes mostly from private foundations, with a few public and corporate donors.

Beneficiaries and Vendors
The match is provided to SNAP and SFMNP program participants. Beans&Greens does not collect specific names of participants, but can track them using the last four digits of the EBT card. At least 25,000 SNAP beneficiaries and 1,000 seniors have participated since the program began. The vendors are 16 farmers' markets in the Kansas City metropolitan area, each run by market managers who are the on-site administrators and contacts.

Evaluation and Outcome
The token system allows Beans&Greens to track SNAP spending and match tokens redeemable for spending at each farmers' market. The program also tracks how many of the distributed tokens are spent and at which specific farmer stand; the Menorah Legacy Foundation, the owner of Beans&Greens, requires this data before reimbursing vendors. The data collection involves farmers' market staff time, and central staff time is needed to enter data and track it. Beans&Greens also collects surveys each year from beneficiaries, farmers, and market managers. Questions focus on program experience, estimated impact, behavior change and demographics. Beans&Greens does not track specific consumption patterns. Beans&Greens has had an estimated impact of $2 million on the local economy.

Successes and Challenges
Beans&Greens has done a large amount with little money and few resources. It is a good model for a low-tech, quick-to-implement program run by a non-profit organization. Its technology choices create some administrative burdens that would not decrease with scale, yet Beans&Greens focuses its administrative tracking to get the most important information with the least effort. Beans&Greens relies heavily on local farmers' market staff and compensates them for this investment.

Market Bucks
Minnesota
2010 – Present

Program Highlights:
BENEFICIARIES: SNAP recipients only at BCBS markets; others include WIC CVV
BENEFIT DESIGN: $1 for $1 match up to $5 for day for use on any SNAP-eligible foods
VENDORS: 42 farmers' markets in BCBS program; 10 additional independent markets
TECHNOLOGY: EBT terminals and paper Market Bucks cards
ADMINISTRATION: Blue Cross Blue Shield & MN Farmers' Market Association
BENEFIT COST: $230,000 total SNAP + Market Bucks redemptions at BCBS markets; Market Bucks are estimated to be a fairly small fraction of this total
ADMINISTRATIVE COST: Estimated at $40,000 - $45,000 per year
FUNDING: Tobacco settlement funds (BCBS); Institute for Agriculture and Trade Policy; Minnesota Statewide Health Improvement Program
OUTCOMES: Transaction patterns suggest many SNAP participants used Market Bucks

Program Overview/Goals
Blue Cross Blue Shield of Minnesota runs the official "Market Bucks" program, but several other MN farmers' markets distribute their own incentives. The Market Bucks program aims to address food security. Health and nutrition are not as highly prioritized because incentives may be spent on any SNAP-eligible foods.

Design and Administration
SNAP participants swipe their EBT cards at central market terminals and receive wooden tokens for the paid amount, plus up to $5 in $1-for-$1 matching incentives on paper Market Bucks cards. The cards may be redeemed with farmers for any SNAP foods. Market managers reimburse the farmers and then receive funds from BCBS. Independent markets which offer incentives may restrict them to fruits and vegetables only.

Beneficiaries and Vendors
The Market Bucks program targets SNAP participants only. Over 13,000 SNAP EBT transactions were recorded at BCBS-participating markets in 2013. Some independent markets also offer incentives to WIC participants with CVV vouchers. Of ~200 farmers' markets in Minnesota, 42 participate in Market Bucks and report to BCBS, and an additional 10 markets operate independent incentive programs.

Evaluation and Outcome
Total SNAP transactions are tracked at BCBS farmers' markets, but no data specifically on Market Bucks distribution or redemption is available. However, 45% of last year's SNAP transactions at BCBS markets were for exactly $5, suggesting a link to Market Match. A 2010 survey indicated that a majority of Market Bucks participants reported eating more fruits and vegetables because of the program.

Successes and Challenges
The Market Bucks program specifically has succeeded in partnering with a large number of Minnesota farmers' markets to make incentives available to SNAP participants. However, because the model relies on SNAP infrastructure, it is not easy to expand to other populations. No outreach strategy has proven particularly effective for publicizing Market Bucks, and transportation of eligible participants to farmers' markets has been a challenge.

Market Match
California
2009 – Present

Program Highlights:
BENEFICIARIES: 38,590 Market Match transactions from SNAP, WIC, SSI, and SFMNP beneficiaries (2013)
BENEFIT DESIGN: Various forms of matching incentives, transitioning to dollar-for-dollar by 2015
VENDORS: 150 farmers' markets, benefitting 1,100 (non-unique) farmers (2014)
TECHNOLOGY: Varies, though tokens and paper vouchers are most common
ADMINISTRATION: The California Market Match Consortium (12 members); Lead: The Ecology Center
BENEFIT COST: $250,000 (partial cost)
ADMINISTRATIVE COST: Not provided
FUNDING: Public grants, First 5 Los Angeles, other local private foundations and funders
OUTCOMES: Leveraged $250,000 in Market Match incentives to generate an additional $1.16 million in federal nutrition benefits redemption at participating farmers' markets (2013)

Program Overview/Goals
The program was founded in 2009 by Roots of Change and is now led by the Ecology Center. Market Match is a highly collaborative program engaging a statewide consortium of farmers' market operators and community based organizations, called the California Market Match Consortium (CCMC). The CMMC has been California's Healthy Food SNAP Incentive Program community of practice running Market Match in 19 Counties across the state. Historically, markets' local Market Match programs have had autonomy to decide the specifics of the benefit level, maximum, administration, and benefits matched in addition to CalFresh. At a minimum, every participating Consortium member must match CalFresh.

Design and Administration
Each farmers' market or farmers' market association administers its own Market Match program, with the Ecology Center offering centralized funding, grant administration, training, technical assistance and statewide marketing and branding. Most farmers' markets offer an additional $10 for every $10 spent at the market in benefits. However, some programs offer an additional $5 for every $10 spent at the market (including some San Francisco markets) or extra $2 for every $5 in benefits spent at the market. In 2015, all the markets will switch to the $1 for $1 matching scheme. The match can be used to purchase fruits, vegetables, nuts, and plant starts.

Beneficiaries and Vendors
Most Market Match beneficiaries are SNAP recipients and secondarily WIC and Senior FMNP recipients. Only a few farmers' markets have been authorized to accept WIC fruit and vegetable checks. The Los Angeles partner, Hunger Action Los Angeles, matches SSI/SSDI dollars: they "enroll" participants by verifying a SSI/SSD check and then matching cash purchases. The vendors, all farmers' markets, have a large say in the administration of the program since farmers' market associations are a part of the consortium. Partnerships with farmers' markets have proven essential for Market Match. The Ecology Center organizes monthly phone calls with vendors and in-person conferences twice a year.

Evaluation and Outcome
The Ecology Center collects surveys from beneficiaries and farmers each year that track changes in consumption patterns and buying patterns. Farmers' markets also collect and report administrative data, including redemption rates and numbers of beneficiaries, to the Ecology Center, though they do not track specific foods consumed. The Ecology Center estimates that the cost to run the programs ranges from 60-80 cents for administration for every one dollar of incentive for associations that run multiple markets and therefore have economies of scale, to as much as $3 in administration for every one dollar of incentives at smaller markets with much less capacity. Generally, the larger the market association or organization, the more cost-effective the program. This is one central goal for the Ecology Center moving forward: streamlining the program in order to cut down on overall administrative costs.

Successes and Challenges

Market Match's loose administrative structure has historically allowed local programs to grow at their own pace, yet this has been a challenge for publicizing the program. Individual farmers' markets or regions have been able to focus on different populations and use different funding structures to match their budgets. Ecology Center is poised to continue this current flexibility, yet normalize the benefit level statewide, strengthen the program's branding and lower the overall administrative costs. As a local organization and leader in food supplement programs, the Ecology Center would be an important ally in setting up a San Francisco program.

Market Match
New Orleans, LA
2008 – Present

Program Highlights:
BENEFICIARIES: SNAP, WIC FMNP, and Senior FMNP recipients
BENEFIT DESIGN: $1 for $1 match up to $20 (originally $25) for use on any market foods
VENDORS: 3 farmers' markets; 72 total vendors in 2012
TECHNOLOGY: EBT terminals and wooden tokens (same as those for credit/debit shoppers)
ADMINISTRATION: Market Umbrella
BENEFIT COST: $10,800 for SNAP incentives in 2012, plus FMNP incentives (smaller)
ADMINISTRATIVE COST: Not specified for Market Match; 6.5 total employees
FUNDING: Private foundations; health care organizations; community funds
OUTCOMES: Overall SNAP redemptions have increased 348% through Market Match

Program Overview/Goals
The Market Match program addresses food security by helping recipients of nutrition benefits stretch their food dollars. At the same time, it helps local farmers access additional funds.

Design and Administration
SNAP participants swipe their EBT cards at central market terminals and fill out a brief survey on market spending, shopping habits, consumption, and demographics. Then, they receive matching incentive tokens along with SNAP tokens. FMNP recipients receive a full match when they spend all their coupons ($20 to $24 in recent years) and bring the empty booklet to the market. Incentive tokens are indistinguishable from tokens given to credit/debit customers and are good for any market items. The match runs three months on and three months off (Match during Jan-Feb-Mar and Jul-Aug-Sep).

Beneficiaries and Vendors
SNAP recipients are the main beneficiaries. Over 1,500 SNAP customers participated in the program in 2012. Market Match also serves a smaller number of WIC and Senior FMNP recipients. 3 farmers' markets participate, for a total of 72 vendors in 2012. These include a mix of farmers, fishers, and value-added vendors. Each market operates about 3 days per week year-round.

Evaluation and Outcome
SNAP participants, but not FMNP participants, complete a survey on EBT spending and fruit & vegetable consumption at the markets. This enables tracking of SNAP use and incentive distribution. Market Match has increased SNAP redemptions at the markets by nearly 350%. However, since the incentive tokens are identical to credit/debit tokens, it is not currently possible to track incentive redemption. The program is strongly considering transitioning to a dedicated incentive token and is also exploring technology options beyond tokens to enable better redemption tracking.

Successes and Challenges
The program has greatly increased SNAP redemptions at farmers' markets in a region where significant cultural barriers to market attendance exist. It also emphasizes participant dignity and choice by making incentive tokens identical to credit/debit tokens and allowing participants to purchase any food items with their incentives. Challenges include the small scale of the program, the lack of large funding sources, and the current inability to track incentive redemptions.

Market Match at the Pacific Coast Farmers' Market Association
6 Counties in Northern CA
2009 – Present

Program Highlights:
BENEFICIARIES: CalFresh recipients; ~2,500 used Market Match in 2013
BENEFIT DESIGN: $5 fruit and vegetable incentive for every $10 of CalFresh benefits spent
VENDORS: 58 farmers' markets in 2013, including 9 in San Francisco
TECHNOLOGY: EBT terminals and special farmers' market tokens for the incentives
ADMINISTRATION: Fresh Approach + PCFMA (administered statewide by the Ecology Center)
BENEFIT COST: $50,000 for incentives in 2013; grew from $30,000 - $35,000 in 2012
ADMINISTRATIVE COST: $50,000 - $60,000 per year for admin, outreach, and evaluation
FUNDING: CDFA Specialty Crop Block Grant (operating costs); local foundations (benefits)
OUTCOMES: CalFresh sales at PCFMA increased 684% from 2009 to 2012; nearly all CalFresh shoppers at PCFMA markets took advantage of Market Match when offered in 2013

Program Overview/Goals
The Market Match program aims to increase fruit and vegetable consumption among CalFresh recipients. By specifically increasing purchases at participating PCFMA markets, it also generates additional revenue for local specialty crop farmers.

Design and Administration
Participants who spend $10 or more in CalFresh benefits at a participating market receive a $5 match per market-day. Market volunteers swipe EBT cards through a terminal and provide yellow tokens for the CalFresh funds along with a green Market Match token, which may only be spent on fruits and vegetables. Green tokens are redeemed with individual farmers, who are then reimbursed by market administrators. Market Match runs March to October only.

Beneficiaries and Vendors
Only CalFresh recipients are eligible for Market Match. In 2013, an estimated 2,500 individuals took advantage of Market Match—nearly all individuals who visited markets during Market Match. The average number of market visits was 2.5 per CalFresh recipient per year. 58 farmers' markets participated in 2013, including 8 in San Francisco, for a total of 70 market days per week. Only farmers selling fruits and vegetables can participate in Market Match.

Evaluation and Outcome
All Market Match transactions are entered into a database, and Fresh Approach analyzes the data. The program also conducts an annual survey of consumers to assess the incentive's impact on behavior. Since Market Match was established, the number of CalFresh recipients visiting PCFMA markets has grown significantly, and the average participant now spends $18-21 per visit, including the incentive.

Successes and Challenges
The program has successfully increased the number of CalFresh participants purchasing local, healthy foods at farmers' markets. Demand for the match has exceeded expectations in recent years. Uncertainty around benefit funding limits the match to summer months, and funding challenges are expected to increase as the number of participants grows. The model is challenging to expand beyond the CalFresh population. No health outcomes are measured.

SNAP+
Minnesota
Summer and Fall of 2013

Program Highlights:
BENEFICIARIES: SNAP participants
BENEFIT DESIGN: Matching incentive of $5 for F&V for at least $5 spent on F&V
VENDORS: Three independent grocery stores
TECHNOLOGY: Paper voucher
ADMINISTRATION: Minnesota Department of Human Services
BENEFIT COST: $15,000
ADMINISTRATIVE COST: Staff time plus approximately $5,000 to grocers' association
FUNDING: Department of Agriculture Specialty Crop Grant
OUTCOMES: Not available

Program Overview/Goals
SNAP+ was designed as a pilot project to encourage SNAP participants to buy and consume more fruits and vegetables. Minnesota already has some matching programs at farmers' markets, and the Department of Human Services wanted to see if a similar program would work at grocery stores.

Design and Administration
In this program, beneficiaries had to spend at least $5 of their SNAP money on fruits and vegetables. Then, at check-out, they were either given a $5 voucher for their next visit or were told to go to customer service to pick up the voucher. While the Department of Human Services officially ran the program, their tasks were largely limited to setting up the program and sending flyers to SNAP participants advertising the program. The day-to-day tasks were done by local grocery stores and the grocers' association, the latter of whom processed vouchers, reimbursed grocers, tracked participation, and supported grocers. The state provided the grocers' association with a $5,000 grant to complete this work, but the grocers' association invested more significantly more staff time and resources than the $5,000 would cover.

Beneficiaries and Vendors
SNAP participants redeemed 3,000 coupons at three grocery stores. The Department of Human Services reached out to the grocers' association, which in turn helped recruit the three grocery store participants. Diverse grocery stores in terms of location in the state, size, and customer base were specifically chosen. Still, all three were in high-poverty areas and fell into the range of "medium" grocery stores.

Evaluation and Outcome
The grocers' association is currently writing a report on the pilot, which will include all tracked data. Specifically, the report should have data on the number of coupons dispersed, the number redeemed, the number of beneficiaries, and what types of fruits and vegetables the beneficiaries bought. This data was all tracked by itemized receipts (which include the digits of the EBT card and specific items bought), which were submitted to the grocers' association to show that each voucher was earned and redeemed.

Successes and Challenges
SNAP+ had an available 30,000 coupons, yet only 3,000 were redeemed, even after extending the program by several months. SNAP+ blamed the low redemption on having so few stores in such disparate places, creating challenges for marketing and forcing beneficiaries to go out of their way to earn and redeem the coupons. Yet, SNAP+ did extensive tracking in a low-tech way. The grocers' association report will highlight the exact cost of the tracking, but by using vouchers to build off the existing coupon redemption system (which the association had been running for years), the program saved money and limited confusion for cashiers and managers.

UCSF Fruit and Vegetable Voucher Pilot
San Francisco, CA
September 2010 – February 2011

Program Highlights:
BENEFICIARIES: 30 WIC recipients with hypertension or pre-hypertension
BENEFIT DESIGN: Weekly $10 vouchers for use on fresh or frozen fruits and vegetables
VENDORS: 28 retail vendors, including both chains and small stores
TECHNOLOGY: Paper vouchers; no technology upgrades required
ADMINISTRATION: UCSF Center for Vulnerable Populations
BENEFIT COST: Up to $1,800
ADMINISTRATIVE COST: <$2,000; largely reimbursement tasks and retailer convenience fees
FUNDING: Robert Wood Johnson Foundation grant
OUTCOMES: 91% of participants reported an increase in fruit & vegetable consumption; systolic blood pressure decreased in 65% of participants

Program Overview/Goals
The pilot program aimed to increase consumption of fruits and vegetables in low-income and minority communities. The study focused on evaluating the impact on hypertension because this is an easily measurable outcome that can change over a relatively short time period.

Design and Administration
Participants were tested for hypertension and received an initial allotment of four $10 paper vouchers to be redeemed at participating vendors. Participants who returned after four weeks for follow-up testing received two additional $10 vouchers. Redeemed vouchers were submitted by vendors with a receipt or indication of purchased items to UCSF for reimbursement. UCSF was responsible for redemption tracking and vendor payment.

Beneficiaries and Vendors
The beneficiaries were women with hypertension or pre-hypertension receiving WIC benefits. The program focused on WIC beneficiaries because the women already made regular trips to WIC clinics to receive benefits, and because women with young children were thought to be more receptive to healthy incentives. The 28 participating vendors were all WIC-approved, meaning they met minimum stocking standards for fruits and vegetables. These included 7 Safeway locations, 2 Walgreens locations, 2 FoodCo locations, and a number of small retailers.

Evaluation and Outcome
The pilot was evaluated through data analysis of redeemed vouchers, follow-up measurement of blood pressure, and a participant survey. The program achieved decreases in blood pressure among a majority (65%) of participants as well as significant self-reported increases in fruit and vegetable consumption, especially among the youngest children in the households.

Successes and Challenges
The program successfully attracted WIC participants, nearly all of whom redeemed all fruit and vegetable vouchers at full face value. 86% of participants reported little or no trouble with redemption. Major challenges included vendor recruitment and training. Program administration and evaluation methods could prove challenging if the program were scaled up.

VeggieRx
Bay Area, CA
2011 – Present

Program Highlights:
BENEFICIARIES: Patients at community health clinics with risk factors for diabetes
BENEFIT DESIGN: Prescriptions totaling $1 per person per day distributed at biweekly clinic nutrition sessions to be spent on fresh fruits and vegetables
VENDORS: 59 farmers' markets (all PCFMA + Heart of the City in San Francisco)
TECHNOLOGY: Paper vouchers with unique QR codes
ADMINISTRATION: Fresh Approach + Community-Based Health Clinics
BENEFIT COST: $59,000 over four rounds in 2013
ADMINISTRATIVE COST: $390,000 over 33 months = ~$140,000 per year
FUNDING: CDFA Specialty Crop Block Grant and The San Francisco Foundation
OUTCOMES: In 2012, BMI decreased for 63% of participants between their first and last visits

Program Overview/Goals
VeggieRx aims to help participants reduce their BMI through improved diets and to establish healthy shopping and eating habits that can be maintained after the program ends. It is modeled after Wholesome Wave's Fruit & Vegetable Prescription Program.

Design and Administration
Participating patients and their families attend 8 clinic sessions over 16 weeks to receive nutrition education. At each session, Fresh Approach staff distribute $2 paper vouchers to provide $1 per day per person in the household. The vouchers have QR codes to track serial number and date of issuance. Vouchers must be spent on fresh fruits and vegetables and can be redeemed directly with farmers at participating farmers' markets.

Beneficiaries and Vendors
Participants are current patients at partnering community health clinics with demonstrated risk factors for diabetes, such as family history or BMI, and their families. In 2013, VeggieRx served 20-30 households in each of four rounds, for a total of 525 individuals. 59 farmers' markets participated in 2013: all PCFMA markets and the Heart of the City market in San Francisco.

Evaluation and Outcome
Height and weight are recorded at each session, and participants answer survey questions about their experiences. In 2013, 85% of participants successfully completed the program. In 2012, 63% of participants showed a decrease in BMI between the first and last session, and nearly 100% reported eating more fruits and vegetables at the end of the program. 64% said they expected to continue purchasing an increased amount of fruits and vegetables after VeggieRx.

Successes and Challenges
The program effectively targets individuals with health risks and supplements financial benefits with nutrition education. Past participants have shown decreases in BMI and have reported increased consumption of healthy foods as well as increased knowledge of nutrition. However, the program is only able to serve a limited number of households per year, and it incurs high administrative costs due to the staffing demands of the clinic sessions.

4. Best Practices for Implementation and Operations

Implementing and operating a healthy food purchasing supplement program effectively is as important as choosing a strong program design. Certain logistical choices make sense for any program, regardless of the specific design a city selects. This final section lays out best practices gather from existing programs for implementation and administration, as well as program evaluation.

4.1 Implementation

- **Frame the program to build political support from a wide range of groups**. Especially if a program is government funded, this step can help secure the program's future. Potential partners include:
  - Urban groups and rural farming communities;
  - Pro-business and pro-social welfare advocates; and
  - Health advocates.
- **Scale the program appropriately.**
  - Target a large enough beneficiary population and vendor network to make the administrative costs worthwhile. In SNAP+, administrators attributed poor redemption to the fact that only three markets participated. Market Match administrators in New Orleans advise new programs to go "as broad as [they] can," pointing to the relative cost-effectiveness of broad outreach campaigns.[123]
  - Analyze geographic access and shopping patterns to ensure that retail networks are accessible to target populations, especially if targeting one type of vendor.
  - Pilot the program in a small geographic area, which can help streamline outreach to and spread knowledge among target beneficiaries.
  - Create a strategic path for expansion. If administrators have an ultimate goal in mind, this can help direct program design decisions.
  - If possible, invest more in technology up-front, as this can save time and increase scalability later on.
- **Involve a broad range of community stakeholders from the beginning.**
  - Include agencies and organizations that work with target beneficiary populations, to ensure that program design choices will have the intended impact in communities.
  - Include agencies and organizations that work with target vendors, to ensure that program design choices will not overly burden vendors. In addition, seek vendor input on the benefit denominations, reimbursement needs, and timelines.
  - Establish buy-in from other government agencies, even if they are not administering the program. Agencies can be a key point of contact to beneficiaries.
  - Include technology partners and innovators, especially if planning to modify or upgrade existing technology.
  - Include potential funders.
- **Emphasize participant outreach through diverse channels.**
  - Send direct mailings to target beneficiaries. Note that this strategy works better for certain populations and requires support from government agencies or community-based organizations. All materials mailed should be linguistically and culturally appropriate.
  - Leverage community partners, who can be helpful with cultural appropriateness and can provide access to hard-to-reach populations.
  - Recruit community leaders to be "program ambassadors" by prompting the program to family and friends.

- Generate media coverage to publicize the program, particularly using media sources based in low-income neighborhoods.
- Combine efforts with existing vendor communications to potential customers, including mailings and point-of-sale documents.
- Monitor outreach to ensure that beneficiaries understand how the program works. In the HIP program, even with extensive outreach, participants often did not understand the direct link between the target foods purchased and the incentives received. 40% of the surveyed participants claimed they had not heard of the program 4-6 months after they began participating.[124]

- **Anticipate the level of effort needed for vendor recruitment.**
  - Utilize existing structures—e.g., farmers' market associations and grocers' associations—for recruitment.
  - Approach the corporate headquarters of supermarkets, as these can be key in coordination and distribution.
  - Utilize existing personnel such as WIC vendor liaisons for recruitment.
  - Be aware of the level of effort to recruit small grocery stores. HIP found it took an average of five in-person visits—far more than expected—to get a grocery store to commit to the program.
  - Invest in comprehensive training for cashiers and other on-the-ground workers.
- **If upgrading technology, build in sufficient time for development.**
  - Work with all technology stakeholders impacted from the beginning, including vendors, software developers, third party processors, etc.
  - Plan for testing and piloting; this is important for all options, even "low-tech" solutions.
  - Leverage private investment in technology development and resources.
- **Be aware of any federal, state or local regulations and waivers.**
  - Conduct legal analyses to identify and potential barriers to program design.
  - Conduct tax analyses. Kansas City Beans&Greens found that beneficiaries had to pay taxes on their benefits, and the program built an additional cost into its budget to cover this expense.
  - Apply for necessary documentation or waivers. SNAP+ did not realize that a waiver was needed to operate an incentive for SNAP participants at grocery stores, and the program had to rush to receive the waiver.

4.2 Operations

- **Build up sustainable personnel.**
  - Avoid over-reliance on volunteers, as this is difficult to maintain over time.
  - Provide stipends to farmers' markets with volunteers.
  - Invest in back-end administrative staff rather than giving additional work to existing employees, particularly if planning to scale up.
- **Provide ongoing support to both new and existing beneficiaries.**
  - Plan for churn among beneficiaries, especially if targeting the SNAP program, where an estimated 25% of discontinued cases re-apply within 3 months.[125]
  - Maintain a phone hotline and dedicated e-mail address to respond to questions.
  - Provide on-site support, particularly at farmers' markets.
  - At points of contact with beneficiaries, check for other types of eligibility to ensure individuals are receiving all available benefits.

- Provide transportation support, particularly for less mobile populations. For example, Greenbucks provided vans for a senior center.
- If possible, explore partnerships to conduct classes or offer classes directly. SNAP+ partnered with local university to run cooking classes and demonstrations.
- Boost the "friendliness" of on-the-ground staff. Existing programs repeatedly stressed this point, especially with respect to farmers' markets. For example, set up welcome tables to facilitate program transactions or answer questions and ensure that the available foods interest a diverse customer base.[126]

- **Maintain vendor relationships.**
  - Set a strategy and schedule for vendor reimbursement, considering the tradeoffs. For example, sending a flat check on a regular basis creates less administrative burden, but withholding money until administrative data is reported ensures that data is collected and reported on time. Double Up Food Bucks (DUFB) sends its vendors money once at the beginning of the market season, whereas Kansas City Beans&Greens has found that withholding reimbursements ensures that vendors submit data promptly.
  - Conduct regular checks-in with vendors to allow for program modifications and improvements. Numerous existing programs contact vendors regularly. For instance, Market Match in California holds monthly calls with vendors and hosts biannual "conferences" for vendors to meet each other.
  - Conduct site visits, particularly for new vendors.
  - If independent grocery stores are used as vendors, plan for vendor churn.

4.3 Evaluation

- **Design the program with data collection and analysis in mind.**
  - Be aware that the script or currency selected impacts the level of data available for evaluation. For example, because the Market Match program in New Orleans opted to use identical tokens for incentives and for credit/debit purchasers, administrators are not presently able to track Market Match incentives redeemed.
  - Select technology to enable comprehensive tracking. HIP's large investment in technology allows detailed automated tracking of individual transactions.
- **Anticipate personnel needed for evaluation.**
  - Anticipate increased costs for evaluation as the program is scaled up. Depending on the technology used, economies of scale may be present. For example, EBT technology and even metal tokens, which can be counted with machines, are more scalable than paper vouchers in terms of evaluation time.
  - Use evaluation data to leverage additional funding.
  - If funds permit, seek external evaluation support.
- **Track redemption rates.** High rates of redemption are an important signal that participants utilize the program, and they also generally result in higher sales for vendors. High redemption rates are tied to thoughtful, context-specific program design based on stakeholder, participant, and vendor feedback.
- **If conducting a health evaluation, plan for a much larger investment of program and participant resources.**
  - Partner with local health providers and institutions.
  - Set metrics and establish baselines.
  - Establish regular check-ins with participants.
  - Find accessible clinics.

- Connect with other existing health evaluations.
- **Treat administrative data as the gold standard, but use survey data to supplement.**
  - Plan the timing and frequency of participant and vendor surveys.
  - Create conditions for high response rate.
  - Leverage existing points of contact with key stakeholders.
  - Finally, understand that even program sales data are limited. Without knowing participants' entire food budget, it is difficult to assess whether there is an increase in the purchase of targeted foods or whether participants are substituting the benefits for money they were already spending on those foods.

4.4 Summary

This section laid out best practices for program implementation, operations, and evaluation drawn from interviews with similar programs around the country. While the information presented here is not exhaustive, it is intended to give program administrators a sense of the central tasks required for setting up, running, and evaluating a healthy food purchasing supplement program. Regardless of the program design selected using Sections 2 and 3 of this reference guide, these logistical considerations are essential for running an efficient and effective healthy food purchasing supplement program.

Appendix A: Model Program Interview Questions

Benefit Design

- What were the major goals of your program? Addressing food security? Healthy food consumption? How did you prioritize them?

- Are your benefits distributed as coupons, matching incentives, additional cash, or something else?
- How are benefits delivered to participants? How often? Do these benefits expire? Roll over?
- Why did you select this benefit design?

- How much do participants in your program receive in benefits?
- How did you decide on the amount of benefits participants receive? What economic, administrative, or other factors impacted your decision?
-
- What types of foods are beneficiaries allowed to purchase?
- Did you consider including prepared foods?
- How did you settle on these food type restrictions? What factors played into your decision?
- How are these restrictions enforced?

Beneficiaries

- How many people/households are enrolled in your program?
- Who are the beneficiaries your program targets?
- How did you decide to focus on that population?
- Do you have plans to expand the beneficiary population? If so, how and when? What challenges do you anticipate?

- What are the specific eligibility requirements?
- Do you have an estimate on the number of people eligible, but not enrolled?
- What are some barriers for achieving full enrollment?

- How did you recruit beneficiaries? What worked and what didn't work?
- Was most of the outreach upfront, or do you engage in ongoing outreach efforts?

Vendors

- What types of vendors participate in your program (e.g., farmers' markets, big box stores, etc.)?
- How many vendors participate? How has this number changed over time?

- How did you recruit the vendors? What worked and what didn't work?
- How do you keep vendors engaged (e.g., regular site visits, email or phone check-ins, etc.)?

- What technology do vendors use on-site?
- What are the pros and cons of that technology for vendors?

- Are there any additional tasks expected of vendors (e.g., redemption reporting)?
- What are the incentives and barriers for vendors in your program?

Administration

- What technology is used to deliver benefits?
- How did you decide on this mechanism? Were others considered?
- What are the pros and cons of this technology?

- What support resources does your program offer to participants? To vendors?

- Could you provide some information on the administrative operating costs of your program in terms of technology, staff, and materials?
- What were the major implementation costs? Specific implementation challenges?

- What sources of funding did you use to cover these costs?

- How long did it take you to plan, pilot, and roll out your program (if applicable)?

- If additional funding were available, what other administrative services would you provide?

Evaluation

- How are benefit redemption rates tracked, and in what detail? By whom?
- How much labor and cost go into this?

- How are specific consumption patterns tracked, and in what detail? By whom?
- How much labor and cost go into this?

- How do you monitor your program for fraud and abuse? What have been the rates of fraud and abuse?

- Do you attempt to link your program to any health outcomes? If so, how? If not, do you plan to do so in the future?

- Have any comprehensive evaluations of your program been conducted already? If so, would you be willing to share the documents and data with us?

Wrap-up

- Designing a new program is challenging because there are so many possibilities. Was there a certain goal or design choice in your program that shaped all others? Did you start by targeting a specific group, selecting certain vendors, picking a certain benefit technology, etc.?

- Looking back, what are the lessons learned? Is there anything you would have done differently?

- Is there anything else that you would like to add?

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