



HEALTH IMPACT ASSESSMENT:
Impacts of Allocating Resources toward Access to Healthy Foods
Strategies in an Underserved South Florida Community

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1.0 Executive Summary

HIA goal: The goal of this HIA is to examine the extent of impact of allocating funding towards access to healthy food strategies and to aid in informing future investment ventures.

Decision: Based on HIA findings, researchers propose to make recommendations to optimize funding and resources to provide access to healthy foods strategies to underserved communities.

A Health Impact Assessment (HIA) was conducted to determine the health impacts of allocating resources for access to healthy foods strategies in underserved communities in Broward County, Florida. The assessment was focused primarily on the Center for Disease Control's recommended strategies to prevent obesity in the United States. Researchers for this HIA seek to more clearly define specific health impacts within Broward communities directly associated or linked to the promotion and implementation of these recommendations. This is achieved through characterizing communities of interest through data analysis, highlighting specific barriers to utilize resources and implement strategies, identifying and gathering information from stakeholders, and examining and describing current trends in these communities.

The consumption of unhealthy foods is linked to obesity, which is linked to chronic disease. Due to this, the relationship between increasing policies, protocols and programming aimed at access to healthy foods, with an increased possibility of healthier options, is a positive correlation supported by best-practice literature. This HIA analyzes a variety of factors to establish a comprehensive baseline understanding. Associated empirical literature was reviewed, and then a baseline was established through existing datasets. The information was synthesized to inform a procedure in examining nutrition in Broward communities in relation to the Transforming Our Community's Health (TOUCH) Initiative.

This HIA assessed the Phase 1 strategies utilized in the TOUCH initiative to address access to healthy foods in underserved communities throughout Broward County. The HIA methodology used helped determine the cost, efficacy scores, and investment-yields for each strategy in order to determine an investment yield coefficient. As a result of a recent Trust for America's Health report, an increased awareness of cost-saving impacts of funding public health interventions has been widespread. Standards of funding an intervention at \$1.00 to \$10.00 per capita have been seen in national and local requests for proposals. The range of cost per person reached for the TOUCH strategies was found to be from \$1.21 to \$14.93 with a mean of \$8.89. Half of these strategies fell within the recommended \$10 per person. The second component of the investment yield coefficient, efficacy, which was scored based on capacity, equitability, generalizability, and sustainability, ranged from 9 to 20. Although all strategies help improve access to healthy foods, limited resources make it necessary to maximize the return on investment for each strategy in order to impact the most residents possible.

Strategy 1: Improve nutrition quality of foods and beverages served or available in schools consistent with the Institute of Medicine's (IOM) Nutrition Standards for Foods in Schools, was the least expensive initiative as well as the most efficacious. It was found to have an Investment Yield of 20+. Strategy 2: Increase accessibility, availability, affordability and identification of healthy foods in communities, including provision of full service grocery stores, farmers markets, small store initiatives, and restaurant

initiatives, was found to have an Investment Yield of 9+. Strategy 3: Improve jurisdiction-wide nutrition policies and practices in early childcare settings, was found to have an Investment Yield of 17-. Lastly, Strategy 4: Increase the number of designated Baby-Friendly Hospitals, was found to have an Investment-Yield of 18-.

Based on the findings and feedback from community stakeholders, recommendations were made to assist decision makers on how to optimize funding and explore additional considerations to access to healthy foods strategies. Recommendations include the following:

- ***TOUCH Strategy 1: Improve nutrition quality of foods and beverages served or available in schools consistent with the Institute of Medicine's (IOM) Nutrition Standards for Foods in Schools.***
 - Expand this opportunity to include additional school governing policies such as incentives in procurement.
 - Connect to national and local funders to expand the program to the 120 schools not being served by TOUCH.
 - Assist schools in accessing resources both for policy and programmatic investments in the education system.
 - Build school wellness councils' capacity.
 - Incorporate ongoing assessment of progress into TOUCH's periodic review.
 - Utilize TOUCH's current outreach infrastructure through social media as a platform to disseminate the compiled resources and programmatic suggestions to schools.
 - Build capacity at schools through district-wide incentives and by having school wellness councils meet regularly (i.e. bi-monthly) or implement inventories.
- ***TOUCH Strategy 2: Increase accessibility, availability, affordability and identification of healthy foods in communities, including provision of full service grocery stores, farmers markets, small store initiatives, and restaurant initiatives.***
 - Utilize the established foundation from Phase 1 to develop a network of corner storeowners with goals related to increasing purchasing power, changing purchasing behaviors of residents by branding the corner store as a place you can get fruits, vegetables, and other nutritionally dense items, implementing placement of food strategies.
 - Establish a corner store network or co-op, as well other activities to enhance economic development and access to healthy foods.
 - Utilize a participatory model involving community residents to build support and momentum for access to healthy foods in the underserved communities.
 - Create a tool-kit with successful tailored approaches for the targeted underserved communities to use as a model for similar areas throughout Broward County.
- ***TOUCH Strategy 3: Improve jurisdiction-wide nutrition policies and practices in early child care settings.***
 - Expand the train the trainer model, workshops, and menu revisions for long-term sustainability.
 - Revisit strategies to engage Broward County as a key stakeholder of added child care sites to ensure all children in the community attending child care centers are impacted by healthier nutrition policies and practices.

- Utilize a broader ecological model to encourage healthy habits of young children and their families through targeted prevention programming.
- Link to additional resources, such as Nemours early care and education funds, as an intervention point to impact the health of Broward County through establishments of an early learning collaborative and enhancements of current efforts.
- **TOUCH Strategy 4: Increase the number of designated Baby-Friendly Hospitals.**
 - Increase sustainability and reach with less 'leg-work'.
 - Consider developing and educating elected officials on a model to provide tax incentives to baby-friendly hospitals.
 - Provided mini-grants directly to the hospital to create policy, practice and environmental improvements within their hospital to support baby-friendly hospital efforts.
 - Explore hospital accreditation procedures or additional non-tax incentives.
- **Supplementary Recommendations:**
 - Expand TOUCH's current work on improving land use and transportation policies with an emphasis on increasing incidental physical activity through adoption and implementation of Complete Streets and Smart Growth principals. Technical assistance and audit policies to ensure a provision to protect farmland and connect neighborhoods to food options within these scopes can further the comprehensive agenda to address access to healthy foods.
 - Develop a written report to include recommendations from planning staff on how to integrate and foster local food system policies into current planning documents and initiatives. (This has been provided by Access to Healthy Foods Strategy 2 partners). Economic development strategies, such as commercial revitalization techniques to promote positive perceptions of underserved communities is aligned with TOUCH's multi-sector innovative approach to addressing health disparities and enhancing the mental and physical well-being of the community.

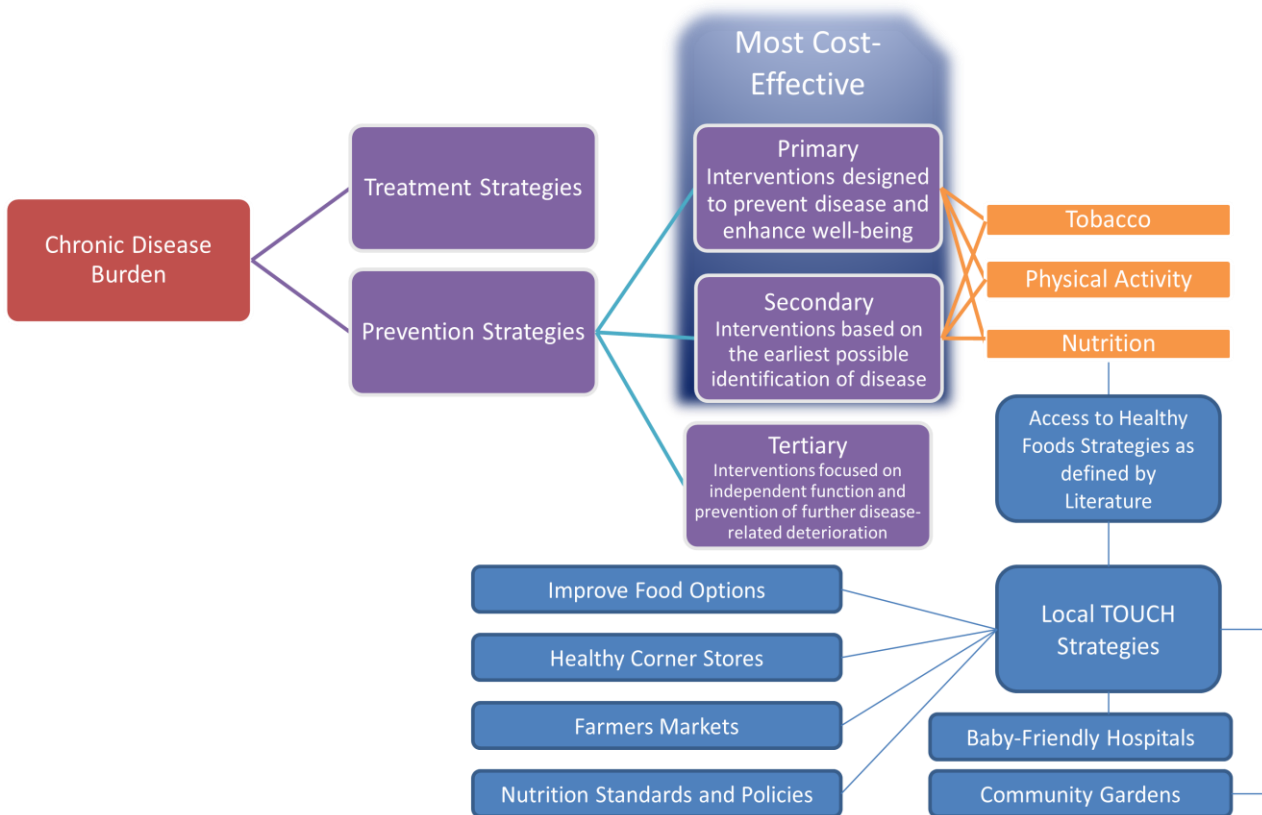
While all strategies have a positive impact on health, the use of funding for less cost-effective or less efficacious strategies may hinder opportunities for reach to a greater percentage of the population. Implementation of these recommendations can help improve benefits of the strategies and ensure the most effective impact on health through this access to healthy foods strategies. The results and recommendations are intended as a platform to inform funding agencies and community partners in their promotion and implementation of access to healthy foods strategies through the TOUCH initiative. The use of the HIA and implementation of recommendations will be monitored to understand the health impacts of the strategies as well as the use of recommendations made in this HIA. The Florida Public Health Institute has committed to continue to collaborate closely with Broward Regional Health Planning Council in assessing health impact through TOUCH Phases 2-5. This will help ensure the best use of resources and the greatest impact on health in the community.

2.0 Background

2.1 Introduction

This HIA was developed to determine the impacts of allocating funding from the Transforming Our Community’s Health (TOUCH) Initiative toward Access to Healthy Foods Strategies. TOUCH is a collaboration of more than 30 community organizations and coalitions that support efforts to reduce health disparities and improve the health and well being of the residents, commuters, and workers of Broward County, Florida. The TOUCH Initiative is funded under the Affordable Care Act by the U.S. Department of Health and Human Services’ Community Transformation Grants in the amount of \$8.8 million over a five-year period. The goals of the Community Transformation Grant focus on supporting public health efforts to reduce chronic disease; promote healthier lifestyles; reduce health disparities and monitor health care spending. Each of the community partners are working in one of four strategic directions: Tobacco Free Living, Active Living and Healthy Eating, High Quality Clinical and Preventive Services, and Healthy and Safe Physical Environment. This initiative is coordinated by Broward Regional Health Planning Council (BRHPC) in Partnership with the Health Foundation of South Florida (HFSF) and funded by the Community Transformation Grant (CTG).

Figure 1. Prevention Diagram Leading to the Development of Local TOUCH Strategies



As part of the TOUCH Initiative, funds have been allocated toward the Healthy Eating strategic direction in the first year (Phase 1) of the five-year initiative. There are four goals that have been outlined for this strategic direction and the specific prevention interventions include improving food options, healthy corner stores, farmers markets, nutrition standards and policies, baby friendly hospitals, and community gardens. This HIA will help determine the comprehensive impacts of this allocated funding and recommend the best strategies to optimize resources and desired impacts. Figure 1 depicts how societal disease burden has impacted the development of these strategies.

2.2 Broward County Demographics

Broward County is located in the southeast region of Florida (See Appendix A) and is the second most populous county in the state. It includes the cities of Miami-Fort Lauderdale, Pompano Beach and the Metro Area. Its population places it eighteenth among most populated counties in the United States. Broward's total area is 1,209.79 square miles with 1,444.9 persons per square mile equaling a total population of approximately 1,780,172 with 810,388 households in 2011. Of these numbers, 5.9% are under the age of 5, 22% are under 18, and 14.3% are over 65. Females compose 51.5% of the population.

According to the same 2011 census, the population race is composed of 66.7% White persons, 27.4% Black persons, 3.5% Asians, 0.4% American Indians, and 0.1% Hawaiian or Pacific Islanders [12]. Individuals identifying as two or more races was reported at 2%, and 25.8% reported a Hispanic or Latino origin. A large proportion of the population in Broward County was foreign born (30.9%) and in 36.6% of homes a language other than English is spoken. The majority of the population has graduated from high school (87.1%) and also displays high home ownership (69.3%). Individuals living below the poverty level were reported at 22.1%. Broward County has the sixth largest school district in the country and the second largest in the state.

2.3 Poverty in Broward

Comparatively in the United States, Broward County, Florida exhibits a poverty level not only above the average for the state of Florida, but also above the national average, according to the 2010 United States census [6]. In Florida, approximately 16.5% of all residents live in poverty. In the state, of people under the age of 18, 23.6% live in poverty and of children aged 5-17 in the same family, 21.9% live in poverty. The state yields a median household income of \$44,390.

In Broward County, an estimated 22.1% of the population lives in poverty. By age group the percentages are: 29.6% of children aged 0-17 and 28.6% of children aged 5-17 in the same family. The estimated median income of Broward is \$34,054. This reveals not only gaps in the population, but represents a high proportion of individuals living with many basic needs unmet, including one of the most essential - food security. With nearly a quarter of the population living at or below poverty, programs aimed at appropriating food provisions become vital to not only food security but also nutrition security to the populations that rely on their existence and are impacted by their associated policies.

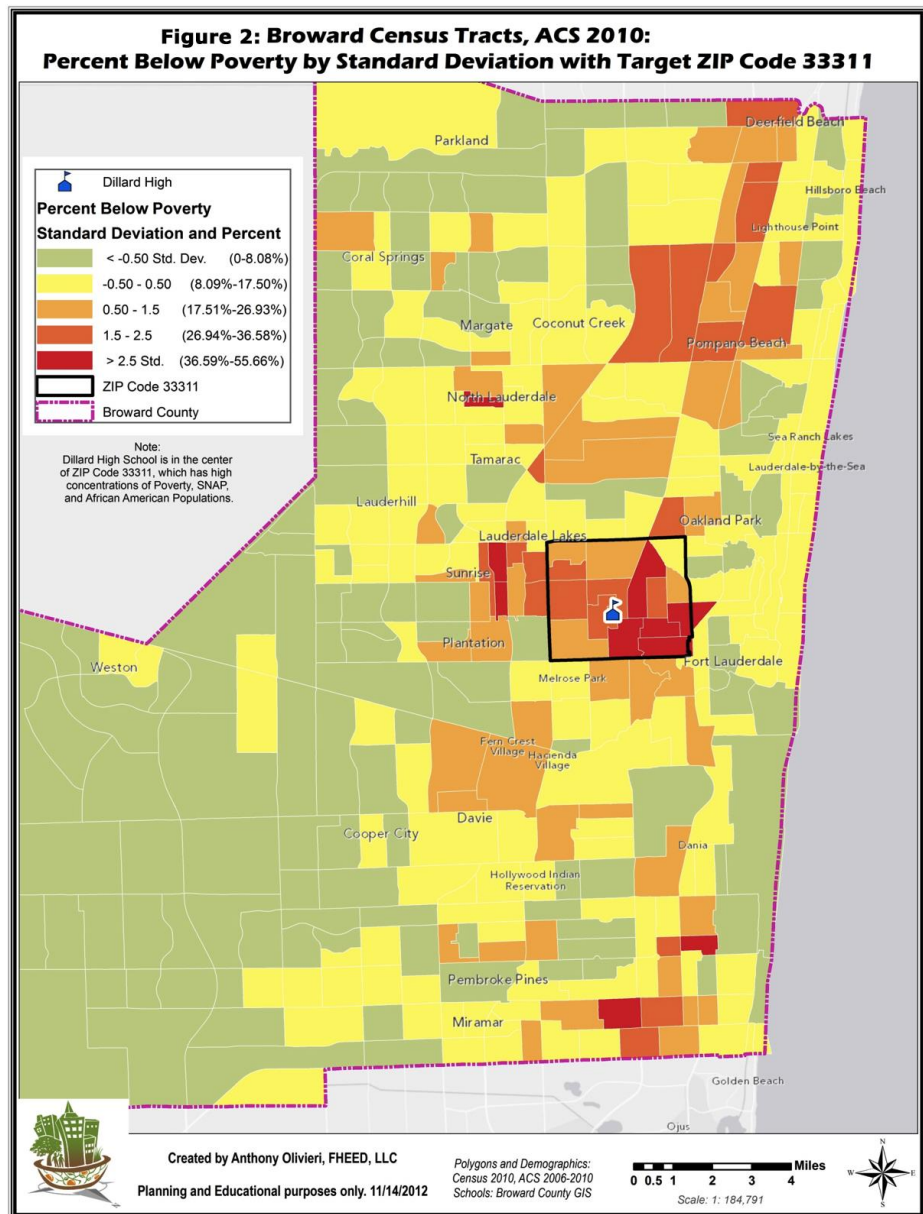
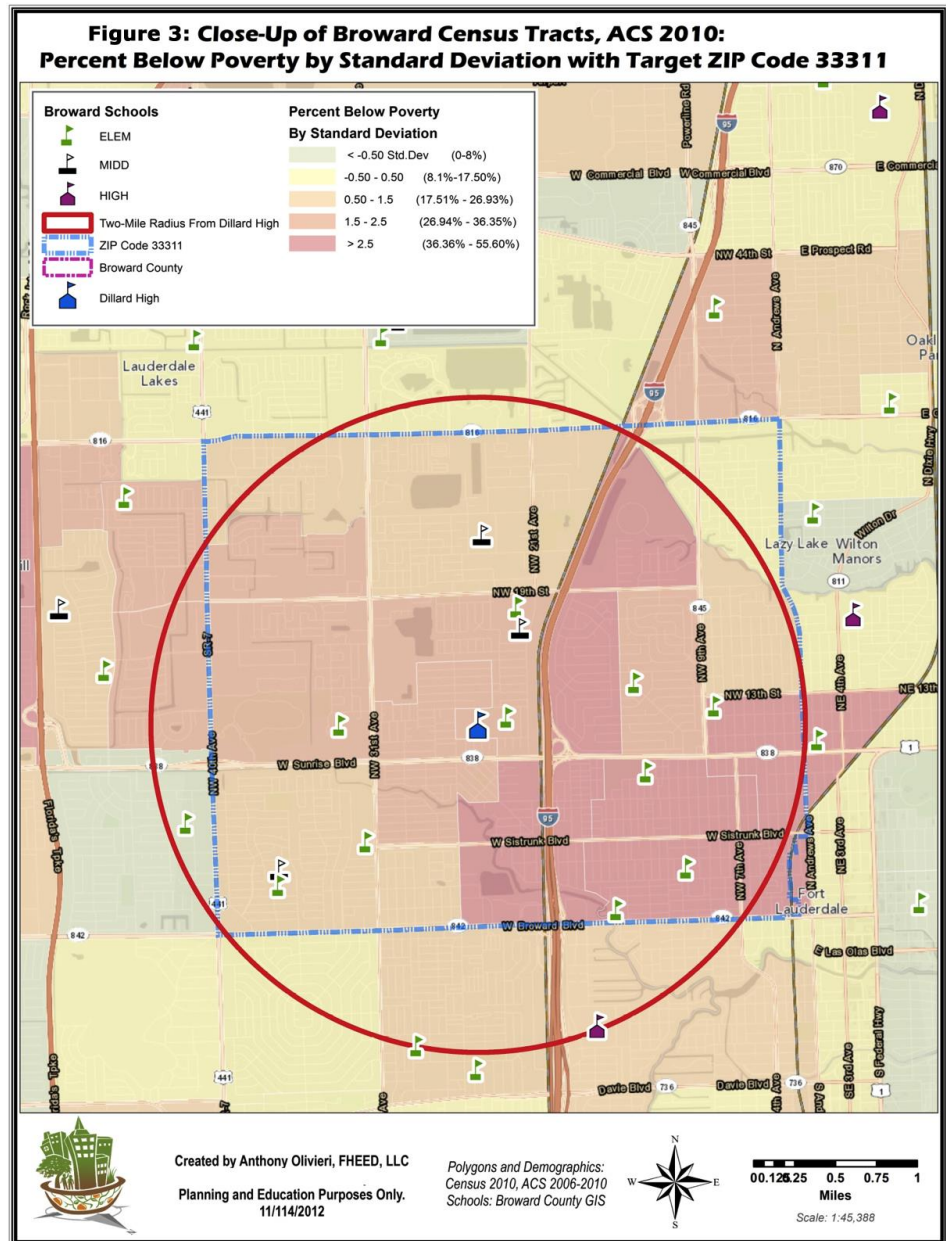


Figure 2 highlights percent below poverty by standard deviation of those in Broward County. From this map, it is evident that the greatest percent of those below poverty resides in zip code 33311. A close-up zip code 33311, Figure 3, depicts 14 elementary, middle, and high schools in the area with the most areas below the poverty level. In addition, Figure 4 shows that this area also has the most food deserts in the area, which means that there is little access to supermarkets or grocery stores with healthy food options.

2.4 Obesity and Chronic Disease in Broward County

Obesity is a growing issue in the United States and many factors, including

education, the built environment, modeled behavior and sustainable programming, among other factors, can have a significant effect on health in a community. One of the main factors associated with obesity is poor dietary choices which are additionally associated with Type II diabetes and chronic diseases leading to acute conditions such as heart disease, stroke and cancer [21]. Environmental factors, including lack of access to full-service grocery stores, high costs of healthy food, and availability of places to exercise, are also associated with higher rates of obesity and diabetes [21, 22]. This generates the question: 'Why are these choices made?'



Obesity is defined for adults as having a body mass index (BMI) equal to or greater than 30.0 and overweight is defined as having a BMI between 25.0 and 29.9. For children, obesity is defined as being above the 95% percentile in BMI in sex-specific growth charts [13]. According to the Centers for Disease Control and Prevention (CDC), obesity is now an epidemic in the United States. Data from 2003-2006 indicates that nearly two-thirds of adults and one fifth of children in the United States were either obese or overweight. In Broward County, 37.2% of the population is overweight and 28% is obese [17]. These conditions have been increasingly linked to chronic disease. In

Broward, the death rates due to associated chronic disease per 100,000 include 111.8 for coronary heart disease, 35.8 for stroke, 9.9 for heart failure, and 15.7 for diabetes [17].

According to a recent report released by the National Association of Counties, correlations have been found between lack of access to healthy foods and diet-related diseases. In addition, it has been shown that an increase in access to healthy foods can have an effect on obesity rates [14]. A 2007 study by Lisa M. Powell et al. found that there was a significant association between the availability of food stores and BMI in adolescents. The availability of large supermarkets was associated with lower BMI and the availability of corner or convenience stores was associated with higher BMI and overweight.

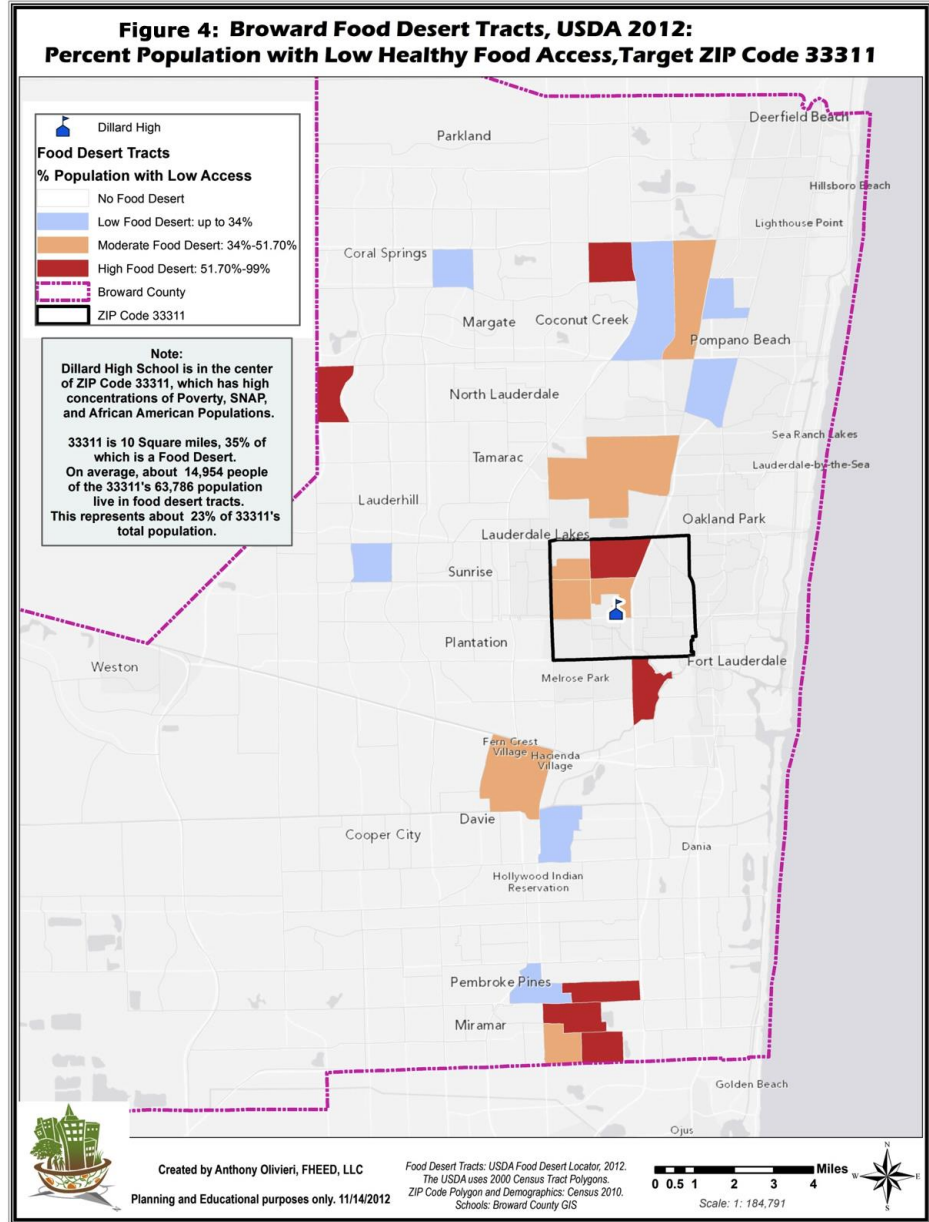


Figure 4, depicts a local example of food deserts where there is limited access to healthy food in the area.

2.5 Nutrition Quality and Availability in Broward Schools

According to the Institute of Medicine, healthy eating is characterized as consuming the types and amounts of foods, nutrients, and calories recommended by the Dietary Guidelines for Americans, and adequate physical activity for children constitutes a total of 60 minutes per day. These recommendations are geared to help identify a healthy lifestyle; yet, environmental factors and built environment, which are not in the individuals' control, also affect health and opportunities for healthy behaviors. Therefore it is imperative that these factors be considered in developing and allocating funding for strategies to improve access to healthy options.

The Centers for Disease Control and Prevention focused on defining obesity among Broward County Students in a recent fact sheet generated with the 2011 national Youth Risk Behavior Survey (YRBS) and the 2006 School Health Policies and Programs Study (SHPPS). This assists in defining high-risk behavior correlated with obesity and informs policies and programs designed to address these behaviors. This study revealed that 9% of high school students in Broward County were obese. Approximately 7% of students did not consume fruit or fruit juices that were 100% juice one week before the survey; similarly, 10% did not eat vegetables during the specified time; yet, 10% drank soda three or more times per day in this same period [28].

Of students surveyed, 20% did not participate in at least 60 minutes of physical activity daily and 76% were physically active at least 60 minutes per day on less than seven days. Of these same students, 60% did not attend physical education (PE) classes during an average week in school and 80% did not attend PE class five days or more during an average week in school. However, students watched television (41%) and used computers (38%) three or more hours per day on an average school day at high rates [28].

Recommendations by the CDC emphasize better health education, more PE and physical activity programs and healthier school environments [28]. School-based programs have been shown to have an impact on helping to improve health. *Healthy People 2020* explains that school settings provide an opportunity to reach people in existing social structures which “maximizes impact and reduces the time and resources necessary for program development.” Two of the objectives outlined in *Healthy People 2020* related to access to healthy foods include: (1) Increasing the proportion of schools that do not sell or offer calorically sweetened beverages to students and (2) Increasing the proportion of school districts that require schools to make fruits or vegetables available whenever other food is offered or sold. [32]

2.6 Access to Healthy Foods in Disadvantaged Communities

Health inequity is at the center of food choices due to an unfair distribution of nutrition resources among Broward County communities and the distribution of convenience stores versus full service supermarkets, which is highly correlated with socioeconomic status. Across the country, it has been found that neighborhoods defined as lower-income have fewer (25% less) chain supermarkets than

those identified as middle-income. This same study found that non-chain supermarkets and grocery stores were more prevalent in low-income and minority neighborhoods [16]. It has been frequently documented in low-income neighborhood nutrition studies that small grocery stores and convenience stores often have a limited selection of healthy food choices, with fresh fruit and vegetables being limited in quantity and quality and high in price.

To reach chain supermarkets often requires transport. A lack of transportation options for low-income individuals may hinder their ability to reach larger chain grocery stores with more options [14]. Historically disadvantaged neighborhoods reveal the highest prevalence of convenience stores as the primary food vendors while more affluent neighborhoods are provided a greater variety and more supermarkets. There are a range of studies that further underscore that lack of access to and great distance from healthy options has a steering effect toward poor choices, heavily influencing selections, and negatively impacting health. This disproportionately affects low-income communities where the primary food distributors are convenience or corner stores that stock little or no fresh produce; rather, these stores traditionally carry highly processed, high calorie food with little or no nutritional value.

Across the country, it has been found that neighborhoods defined as lower-income have fewer (25% less) chain supermarkets to those identified as middle-income. The same study found that non-chain supermarkets and grocery stores are more prevalent in low-income and minority neighborhoods [16]. This is reflected among areas in Broward County as evidenced by Figure 3.

The United States Department of Agriculture Food Desert Locator shows that there are 21 census tracts in Broward County with limited access to affordable and healthy food options [31]. These census tracts are home to 120,000 residents of which 63,000 have low access. Disparities are observed in the following sub-population groups: low-income (11,170), children (13,662), and seniors (14,586). Also, these communities have a higher proportion of African Americans and Hispanics.

Behaviors are formed at a young age based on nutrition options and modeled adult behavior. Studies demonstrate a positive correlation between obesity in adults and obesity in children [24]. Families foster a learned behavior founded on nutrition environment access. When these local environments are poorly outfitted, children are conditioned to make the only choice available to them – a less healthy one [21]. While the overall rates of children walking to and from school has drastically declined in the past decades, children of low-income neighborhoods, where motorized transportation is less available, continue to actively commute to and from school. More than half of children in a study published in *Pediatrics*, shopped at corner stores every day, before and after school, while another 21.9% shopped two to four times per week. The study showed that purchases made in corner stores contribute significantly to energy intake among these urban school children and that children frequently purchased energy-dense, low-nutritive foods and beverages that average more than 356.6 kcal per purchase [23]. This increases the quantity of food these children consume with much lower nutritional value – high caloric intake with no nutritional benefits.

Built environment and accessibility, specifically, are essential to fully understanding the development of eating behavior and choices associated with caloric intake [13]. The built environment directly impacts nutrition choices by the density of fast-food retailers and convenient stores versus full service

supermarkets and restaurants. The former have been identified as direct contributors to unhealthy selections because their merchandise is limited; this highlights a need for access to fresh produce and variety. This is supported in the Salis obesity study, which emphasized the necessity of a strong local food economy to provide healthier options. It further revealed the percentage of farms engaging in direct sales had a significant negative association with the obesity rate and is, further, negatively associated with diabetes. However, these associations are more commonly documented in higher income neighborhoods while low-income neighborhoods are more likely to be limited mainly to convenience store commodities [21]. Identified and supported in multiple studies, an increase in poverty is positively correlated with obesity. Community stores often lack access to fresh produce and the community involvement necessary to affect change is limited, which warrants programming and resources to address this disparity and places the responsibility with the public health community to identify feasible and attainable goals and strategies to overcome these disparities [21].

2.7 Nutrition Policies and Practices in Early Child Care Settings

Healthy People 2020 defines one objective of providing access to healthy food as increasing the number of states with nutrition standards for foods and beverages provide to preschool-aged children in child care [32]. Especially at preschool-age, it is important that children have access to healthy food as well as learn to eat healthy foods in their periods of growth and development. The “Caring for our Children” National Health and Safety Performance Standards outline the protocols and standards that should be used throughout early child care settings [34]. The standards outline methods of preparation, foods that should be offered, and other items relevant to nutrition in these settings. The standards explain, “Early food and eating experiences form the foundation of attitudes about food, eating behavior, and consequently, food habits.”

The Child Care Food Program is administered by the Bureau of Child Care Food Programs and provides nutritious meals and snacks to children through public-private partnerships with organizations committed to caring for children [33]. To qualify for the program and receive reimbursements, food items provided to children must meet specific U.S. Department of Agriculture meal pattern requirements. Food components include fluid milk, fruits and vegetables, grains and breads, and meat and meat alternates. Breakfast must include 3 food components; lunch must include four with an additional fruit or vegetable and snack must include two food components [33]. There are over 1000 licensed childcare centers serving 100,000 children through age five in Broward County. Although 241 centers in Broward County participated in this program these standards do not meet all the “Caring for our Children” standards.

According to data from the Pediatric and Pregnancy Nutrition Surveillance System, Broward County preschool age children identified as low-income have an obesity prevalence rate of 15-20%. This is higher than obesity rates for children in the same age and income group in Florida who have an obesity prevalence of 10-15% [35]. A standard policy throughout Broward County would help to outline the steps that early childhood care centers need to take to ensure that the children they care for are eating and learning to eat healthy foods. This would affect their future views towards food as well as help to begin to address obesity rates in the county.

2.8 *Baby-Friendly Hospitals and Nutrition*

Breastfeeding is a low-cost practice and the best source of nutrients for infants and provides health benefits to mothers as well. In addition, according to the White House Task Force on Childhood Obesity, children who are breastfed are at reduced risk of obesity; the likelihood of obesity has been shown to fall among children who are breastfed. Although the health benefits and cost benefits of breastfeeding have been well documented, many mothers may not initiate breastfeeding or begin to introduce other forms of nutrition within two or three months [36].

According to Florida CHARTS data, an estimated 6,298 or 29.8% of Broward newborns in 2011 were identified as Hispanic. 11,510 or 54.6% of newborns in 2011 were white and 9,478 or 44.9% were black [17]. According to local data collected by Healthy Start Coalition (<http://www.browardhealthystart.org>) for WIC mothers, there is a disparity in breastfeeding rates among Hispanic and Non-Hispanic Black mothers in Broward County. In Broward, the initiation rate for Hispanic mothers is 83.2% but the 6-month duration rate for same population is 42.5%. The initiation rate for Non-Hispanic Black mothers is 73.2% but the 6-month duration rate for this population is 36.5%.

According to United Nations Children's Fund (UNICEF), the Baby-Friendly Hospital Initiative is an effort by UNICEF and the World Health Organization to ensure that all hospitals become centers of breastfeeding support. Facilities can be designated as baby-friendly when they do not accept free or low-cost breast milk substitutes, feeding bottles or teats, and have implemented 10 specific steps to support successful breastfeeding [30]. This helps to ensure breastfeeding initiated among new mothers and that they have the tools and information they need to continue to breastfeed their newborns. In 2010, 8 hospitals and 3 birthing centers accounted for an estimated 23,580 births in Broward County. As of January 2012 before the TOUCH initiative began, there were no UNICEF designated Baby-Friendly Hospitals in Broward County.

2.9 *Funding Allocations in Public Health in Terms of Cost*

Investment in prevention measures has been well documented as an effective and necessary process to improve and maintain public health while lowering annual national health care costs. The 2009 Trust for America's Health report titled *Prevention for a Healthier America: Investments in Disease Prevention Yield Significant Savings, Stronger Communities* underscored the concept that investment in community-based programs that result in increased levels of physical activity, improved nutrition, and reduction in smoking and tobacco rates would significantly reduce health care costs associated with chronic disease. Most community based programs cost \$10.00 and under per person per year to implement and the projected annual net savings over a one to two-year period is \$2.8 billion. Over a five-year period, the projected savings is \$16 billion and nearly \$18 billion in 10 to 20 years. The amount of return on investment (ROI) for community based prevention programs (net savings/cost of intervention) is 0.96 in the first one to two years of the program (one dollar over the cost of the program for every dollar invested). A similar trajectory is depicted within five years (ROI of 5.6 for every \$1 invested) and within 10 to 20 years (ROI of 6.2 for every \$1 invested). On a state level, Florida would have a ROI of 1.13, 6.17, and 6.87 over one to two-years, five-years, and 10-20 years, respectively.

As a result of the Trust for America's Health report, an increased awareness of cost-saving impacts of funding public health interventions has been widespread. Similar guidelines and standards of funding an intervention at \$1.00 to \$10.00 per capita have been seen in national and local requests for proposals. This is exemplified in the 2012 Communities Transformation Grant awards which ranged from \$1 per capita to \$10.00 per capita per year based on the size of the proposed intervention population as well as the number and complexity of the proposed strategies and outcomes.

Similarly, Transforming Our Communities Health (TOUCH) initiative was developed on the basis of maximizing ROI for community-based programs, policies, protocols and system changes to positively impact the health and well-being of residents of Broward County. The selection and implementation of strategies has been proposed by the TOUCH team at Broward Regional Health Planning Council and supervised by the Center for Disease Control and Prevention. In this Health Impact Assessment, cost is defined as the amount of funding divided by the reach, to yield dollar per person.

2.10 Defining Efficacy of Public Health Interventions

Traditionally, from a public health perspective, the impact of an intervention is a product of efficacy in affecting individual behavior change and the expanse of its reach [29]. In the context of this report, efficacy is defined by four components and used as a construct to determine impact of proposed programs. It is a tool used by the researchers and stakeholders to measure capacity, equitability, generalizability, and sustainability in relation to one another as well as a comprehensive whole to determine the projected success of the program of interest. Each of these factors is defined as:

- Capacity is based on the community partner's ability, expertise, and resources as well as the community's readiness to become stakeholders in the intervention.
- Equitability is based on the percentage of the population reached in the targeted area.
- Generalizability is based on the ability to generalize the local intervention to neighboring jurisdictions.
- Sustainability is based on the plausibility under current conditions for sustaining efforts post investment.

Understanding these as individual components of a project as well as a cohesive working model defines efficacy making it a core concept in assessing the impacts of resource allocation resources for interventions.

3.0 *Impacts of Healthy Food Funding Allocations in Broward County, FL*

3.1 *Purpose*

The goal and purpose of this HIA is to examine the extent of impact of allocating funding from Transforming Our Community's Health Initiative in Broward County, Florida towards access to healthy food strategies and to aid in informing future investment ventures.

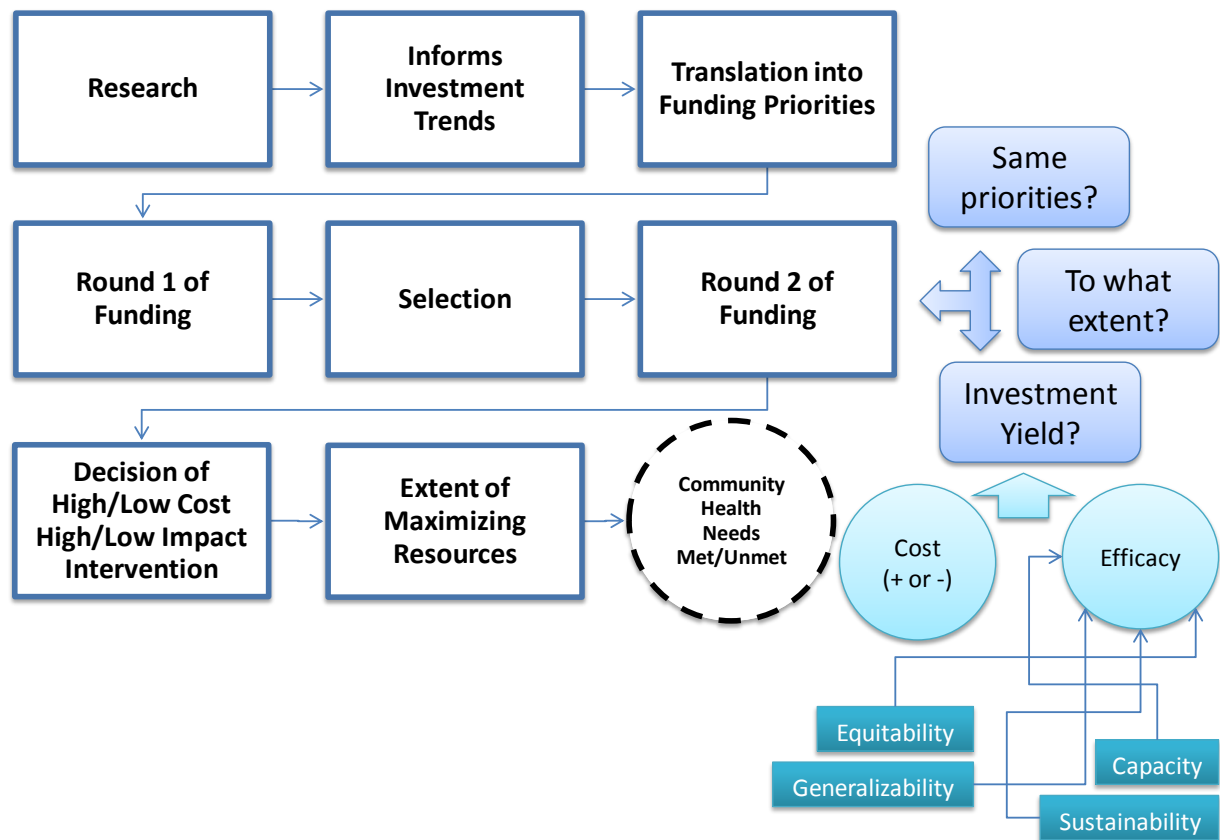
3.2 *Methodology*

A Health Impact Assessment (HIA) describes a process outlined to inform how policies, programming, or projects can affect health. It employs a variety of research methods and tools to comprehensively consider environmental, social and economic determinants of health. HIAs are designed to recommend mitigations for unintended negative health impacts of the programming or policy being assessed [26]. An adapted definition from the International Association of Health Impact Assessment outlined in the book *Improving Health in the United States: The Role Health Impact Assessment* defines a Health Impact Assessment as “a systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program or project on the health of a population and the distribution of those effects within the population. HIA provides recommendations on monitoring and managing those effects.” [27]. This publication also explains that HIA “has arisen as an especially promising way to factor health considerations into the decision-making process”. HIA assists public health professions in outlining alternatives and improvements to prevent disease and/or injury and to proactively promote health and helps to inform decision makers on these alternatives and improvements.

Screening:

The screening portion of this HIA was used to assess the value, feasibility, and utility of the HIA in the decision-making process. Researchers met with stakeholders and reviewed discussion items and strategies employed to assess and fund access to healthy foods strategies in low-income communities of Broward County. It was determined that an HIA would be beneficial and attainable in identifying an investment-yield coefficient to interpret the cost and efficacy of each venture. Based on the results of this report, the HIA is valuable in making Broward investors equipped to decide how to best devote resources and allocate funding toward strategies to increase access to healthy foods throughout their community. Recommendations made will help with planning future allocations of this funding. The ultimate goal is to ensure that community needs are met in the most efficacious ways possible in order to maximize resources available. Figure 5, *Investment Considerations*, depicts the pathway to the HIA decision point and the questions at hand.

Figure 5. Investment Considerations

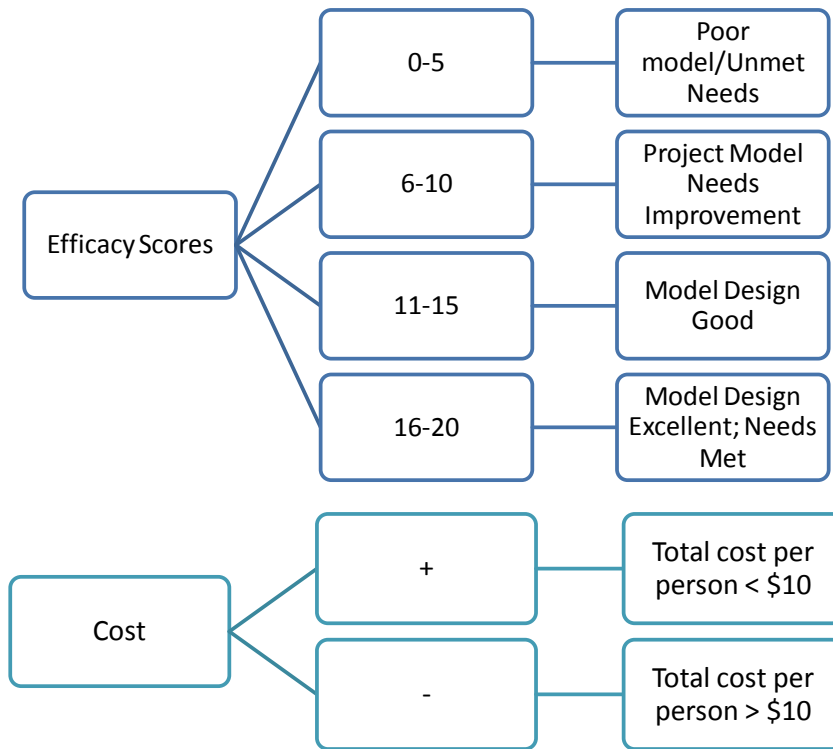


Scoping:

The HIA development was completed by a review of existing secondary data sources, current literature, and 2008-2011 census data. Empirical literature was reviewed with search topics 'access to healthy foods' 'childhood obesity' 'South Florida' 'low-income neighborhoods' 'public health interventions' 'return on investment in public health nutrition', which produced an array of literature including cross-sectional and longitudinal studies as well as cost analysis and cost study reports with the indicated research topics. To develop baseline data, a profile was developed based on information from the census; then GIS data was analyzed to determine store density by income, which was compared with school districts in Broward County. These are the target areas for implementation of the local access to healthy foods interventions.

Government and organization programming and reports were reviewed as well as barriers or behaviors identified in literature to fully comprehend the nature of disparity and to ensure inclusion of all potential contributing factors. Topics covered include demographics and socioeconomic factors within Broward County as well as factors associated with access to healthy foods. Research tools developed to assess community perceptions and to gauge community interest in healthier options were reviewed and best practices in similar studies that target access to healthy foods were identified to understand the type of programming that has been successful.

Figure 6. Efficacy and Cost Indication Based on Allocated Scores and Symbols



dependent on the intervention's ability to be implemented for less than \$10 per person per year. Efficacy was determined by capacity and likelihood of implementation, equitability and reach, generalizability, and plausible sustainability (Figure 6). Each of these components were scored on a Likert Scale from one to five, one being the least favorable and five being the most for each category (Table 1).

The scores were then interpreted into an efficacy number, which was compared with cost direction and equals investment yields. Figure 6 depicts the flow of efficacy and cost based on allocated scores and symbols. The discrete prevention interventions described in Figure 1 were grouped and analyzed within the respective strategy goals (Table 2).

Table 1: Likert Scale Questions for Efficacy Components

Components	Scoring Criteria	Range
Capacity	Scored based on the community partner's ability, expertise, and resources as well as the community's readiness to become stakeholders in the intervention.	1 to 5; unlikely to accomplish, somewhat likely to accomplish, likely to accomplish, very likely to accomplish
Equitability	Score based on the percentage of the population reached in the targeted area.	
Generalizability	Score based on the ability to generalize the local intervention to neighboring jurisdictions.	

Sustainability	Score based on the plausibility under current conditions for sustaining efforts post investment.	
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Table 2: TOUCH Strategies Addressing Access to Healthy Foods

Number	Strategy
1.	Improve nutrition quality of foods and beverages served or available in schools consistent with the Institute of Medicine’s (IOM) Nutrition Standards for Foods in Schools.
2.	Increase accessibility, availability, affordability and identification of healthy foods in communities, including provision of full service grocery stores, farmers markets, small store initiatives, and restaurant initiatives.
3.	Improve jurisdiction-wide nutrition policies and practices in early child care settings.
4.	Increase the number of designated Baby-Friendly Hospitals.

3.3 Key Findings

The key findings for each strategy are outlined in Table 3, which shows the cost, efficacy scores, and investment-yields determined by each strategy.

The cost per strategy was found by dividing the total cost for Phase 1 of the strategy by the reach. The range of cost per strategy was found to be between \$1.21 to \$14.93 with a mean of \$8.89. Half of these strategies would fall within the recommended \$10 per person. However, based on stakeholders input, not maximizing the return of investment for each strategy can indirectly cause negative health impacts by restricting possibilities for additional distribution of resources and limiting the potential reach of interventions. These considerations are further explored in the following sections outlined by strategy.

Table 3: Investment Yields for the Four TOUCH Access to Healthy Foods Strategies

Strategy	Cost*	Efficacy Scores	Investment-Yields
1. Improve nutrition quality of foods and beverages served or available in schools consistent with the Institute of Medicine’s (IOM) Nutrition Standards for Foods in Schools.	+	Capacity - 5 Equitability - 5 Generalizability - 5 Sustainability - 5 Total: 20	20+
2. Increase accessibility, availability, affordability and identification of healthy foods in communities, including provision of full service grocery stores, farmers markets, small store initiatives, and restaurant initiatives.	+	Capacity - 2.5 Equitability - 1 Generalizability - 3 Sustainability - 2.5 Total: 9	9+
3. Improve jurisdiction-wide nutrition policies and practices in early childcare settings.	-	Capacity - 3 Equitability - 5 Generalizability - 5 Sustainability - 4 Total: 17	17-
4. Increase the number of designated Baby-Friendly Hospitals.	-	Capacity - 5 Equitability - 5	18-

		Generalizability - 5 Sustainability - 3 Total: 18	
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*Cost was scored with a positive or negative symbol dependent on the intervention’s ability to be implemented for less than \$10 per person per year.

TOUCH Strategy 1: Improve nutrition quality of foods and beverages served or available in schools consistent with the Institute of Medicine’s (IOM) Nutrition Standards for Foods in Schools. Education on improving nutrition-related standards within existing policies with regards to Nutrition Standards for Foods in Schools has been replicated throughout the United States and serves all individuals participating in the food program. The lead community partner has demonstrated success in establishing similar policies in neighboring jurisdictions and once adopted the intervention is self-sustaining. The complimentary community partner was a key stakeholder in assuring the adoption and implementation of the policy. The cost for this intervention was the lowest among all four at \$1.21 per person for the first year. An invest-yield of 20+ was assigned to Strategy 1.

Table 4: Strategy 1: Likert Scale Analysis and Cost Summary

Component	Description	Score
Capacity	Lead organization has a national track record of successfully developing and having policies adopted. County public school system a key stakeholder is on board.	5
Equitability	All within target area were reached.	5
Generalizability	Individualized school policies can be replicated at neighboring schools.	5
Sustainability	Once policies are enacted plausibility for sustainability is excellent.	5
Total		20
Year 1 Cost	Description	Symbol
\$1.21	< \$10 per person	+

TOUCH Strategy 2: Increase accessibility, availability, affordability and identification of healthy foods in communities, including provision of full service grocery stores, farmers markets, small store initiatives, and restaurant initiatives. Strategy 2 has six community partners with distinct and overlapping roles in the integrated approach to address perhaps the most complex TOUCH access to healthy foods undertaking. Specific activities include nutrition environment assessments, healthy corner store owner and consumer outreach and assessment, establishing farmers markets, and connecting farmers to corner stores and restaurants. The demographic area is a target underserved community of 25,000 residents. The community served has been recognized as an area with poor health and poverty indicators. The target population of 25,000 was based on the United States Department of Agriculture Food Desert Locator Tool where there are 21 census tracts in Broward County with limited access to affordable and healthy food options. These census tracts are home to 120,000 residents of which 63,000 have low access. This strategy will reach over 25,000 residents living in food deserts by increasing access and availability to healthy foods through a corner store initiative and farmers markets. Based on the Food Desert Locator data, partners will target census tracts with a minimum of 4,000 residents and prioritize those with 100% of their population as having no access to healthy foods.

All partners demonstrate a certain level of food system knowledge, but monthly reports would indicate difficulties in the capacity to fully accomplish activities among half of the partners which yielded a 2.5 score for capacity. Partners focused on farmers markets and connecting farmers to corner stores and

restaurants did not have exact reach numbers for Phase 1, since the majority of their work was geared towards establishing the system to implement or inform change in Phase 2 through 5. Therefore, equitability was based on the number of residents served by 95% of corner stores in the target area. The total of 2,900 (gathered from vendor survey data) was divided by the entire target population, which resulted in a tangible reach of less than 20%. Therefore, a comparable score for equitability was given. The tactics used for increasing access to healthy foods is community specific and determined post resident participatory engagement, however, the information gathered from the tools (maps and surveys) developed to assess the food environment were generalizable to neighboring jurisdictions with similar health and demographic indicators. The overall sustainability of strategy 2 at the end of Phase 1 was mid-level promising with limited lasting effects to impact access to healthy foods based on deliverables. The costs for strategy 2 only took into account partners whose reach numbers were well documented. A cost amount of \$5.80 was given based on the entire 25,000 target population. When the formula is reduced to the number of individuals reached by only the corner store piece, the cost would increase to *\$50.00 per person. An invest-yield of 9+ was assigned to Strategy 2.

Table 5: Strategy 2: Likert Scale Analysis and Cost Summary

Component	Description	Score
Capacity	Took into account all partners contracted within Strategy 2. Half of the initiatives were shown to be very successful according to reporting documentation and other half did not advance in Phase 1 due to needed capacity building for lead grantees and key stakeholders.	2.5
Equitability	Based on the initiatives that were able to provide documented reach numbers.	1
Generalizability	Weighed between a weak factor of needed community-specific interventions and a strong factor of a train-the-trainer model for assessing food environments.	3
Sustainability	Based on lasting effects for initiatives considered in equitability and generalizability components.	2.5
Total		9
Year 1 Cost (Target Pop. Reach)	Description	Symbol
\$5.80	< \$10 per person	+
Year 1 Cost (Corner Store Reach)	Description	Score
*\$50.00	> \$10 per person	-

TOUCH Strategy 3: Improve jurisdiction-wide nutrition policies and practices in early child care settings. Overall, this efficacious strategy scored well. A key community stakeholder who would impact additional sites was not impacted by the selection criteria; therefore, the capacity of the strategy was compromised. The train-the-trainer model for disseminating information diminishes the cost of training staff, however, the current model lacks the ability of being sustained unless staff is occasionally available (twice a year) to conduct trainings and provide technical assistance. The generalizability of materials for all childcare settings scored a full five points. All children and staff at sites will benefit and the five community partners involved are experienced and have full support to introduce these protocols at the sites system wide. Although several components of the strategy are self-sustaining, funds for annual menu revisions are required. This is dependent on the system's capacity and economic standing, which could flaw or uphold the model. The cost was determined by estimating 7,193 individuals reached from 116 documented sites from the overall goal of reaching 40,000 at 645 sites.

The cost for strategy 3 was \$14.93 per person for the first year. Although the level of capacity and ability to be equitable, generalizable and sustainable are high, an invest-yield of 17- was assigned to Strategy 3 due to the surpassed \$10 per person investment recommendations.

Table 6: Strategy 3: Likert Scale Analysis and Cost Summary

Component	Description	Score
Capacity	Partners selected had the ability to impact a proportion of sites while a key stakeholder who can influence the other amount is not included in the intervention for Phase 1.	3
Equitability	Based on the potential for all children to be reached within target sites.	5
Generalizability	Materials developed and disseminated can be replicated across participating and non-participating sites.	5
Sustainability	Majority of policies and protocols will uphold with time; however, one will need to be revised periodically which will depend on the institutions capacity and economic standing at that moment.	4
Total		17
Year 1 Cost	Description	Symbol
\$14.93	> \$10 per person	-

TOUCH Strategy 4: Increase the number of designated Baby-Friendly Hospitals. The capacity of partners and readiness of the community to achieve strategy 4 goals was significant. The process of becoming a designated Baby-Friendly Hospital is similar to a resolution or policy adoption; however the cost is \$13.63, which is significantly higher than the first strategy due to the implementation at several institutions serving a moderate number of newborns (4,400). As in policy adoption, becoming a baby friendly hospital would permit for equitable access to baby-friendly practices, the model can be replicated at similar institutions and is sustainable over time. The one-on-one outreach and technical assistance activities within this were not foreseen as sustainable, although the development of a supportive network will assist in carrying on several aspects of the strategy. An investment yield score of 18- was allocated to this strategy.

Table 7: Strategy 4: Likert Scale Analysis and Cost Summary

Component	Description	Score
Capacity	Based on ability for lead partner to engage stakeholders and receive buy-in for intervention.	5
Equitability	Entire target population was served with implemented intervention model.	5
Generalizability	Model has been proven effective in distinct sites and can be replicated jurisdiction-wide.	5
Sustainability	Dependent on labor-intensive individualized outreach to fully succeed in implementing various steps within the desired intervention.	3
Total		18
Year 1 Cost	Description	Symbol
\$13.63	> \$10 per person	-

4.0 Recommendations

As TOUCH successfully enters its second phase on October 1st, the following recommendations will assist decision makers on how to optimize funding and explore additional considerations to access to healthy foods strategies.

TOUCH Strategy 1: Improve nutrition quality of foods and beverages served or available in schools consistent with the Institute of Medicine’s (IOM) Nutrition Standards for Foods in Schools. This was the least expensive initiative as well as the most efficacious. As the education for improving nutrition-related standards within the individualized school wellness policies continue, a recommendation to expand this opportunity to include additional school governing policies such as incentives in procurement should be considered.

TOUCH has partnered with a local foundation for leveraging support. A similar approach is recommended for the following three concepts: (1) connect to national and local funders to expand the program to the 120 schools not being served by TOUCH, (2) assist schools in accessing resources both for policy and programmatic investments in the education system, and (3) build school wellness councils' capacity. The first recommendation is a common tactic in public health investments as commonly visited in grant planning or ending phases. A recommendation to incorporate an ongoing assessment of progress into TOUCH's periodic review would assist in identifying funding to meet the goal of serving all public schools in Broward County. Secondly, establishing these connections for schools will foster an environment that encourages healthy behaviors and mitigates possibilities of funding isolated-investments, which yield negative impacts over time. An example of an isolated-investment was demonstrated with the implementation of the Healthy Kids Hunger Free Act, where school policies required fruits and vegetables to be served to each child only to learn these healthy options were being thrown away once children ate the foods they had chosen. Education and programmatic investments must support needed policy change to increase opportunities for behavioral change. TOUCH's current outreach infrastructure through social media can serve as a platform to disseminate the compiled resources and programmatic suggestions to schools. Lastly, building capacity at the individual schools through district-wide incentives and by having school wellness councils meet regularly (i.e. bi-monthly) or implement inventories is an additional individualized way to sustain Strategy 1 efforts.

TOUCH Strategy 1 Recommendation Overview
• Expand this opportunity to include additional school governing policies such as incentives in procurement
• Connect to national and local funders to expand the program to the 120 schools not being served by TOUCH
• Assist schools in accessing resources both for policy and programmatic investments in the education system
• Build school wellness councils' capacity
• Incorporate an ongoing assessment of progress into TOUCH's periodic review
• Utilize TOUCH's current outreach infrastructure through social media as a platform to disseminate the compiled resources and programmatic suggestions to schools
• Build capacity at the schools through district-wide incentives and by having school wellness councils meet regularly (i.e. bi-monthly) or implement inventories.

TOUCH Strategy 2: Increase accessibility, availability, affordability and identification of healthy foods in communities, including provision of full service grocery stores, farmers markets, small store initiatives, and restaurant initiatives. Dependent on the reach number, this strategy can be labeled within the recommended amount or as the most expensive, and although assessments have consumed a large portion of the funds, strategically translating the findings will determine the extent of the return-on-investment for Phase 2. It is recommended to utilize the established foundation from Phase 1 to develop a network of corner storeowners with goals related to increasing purchasing power, changing purchasing behaviors of residents by branding the corner store as a place you can get fruits, vegetables, and other nutritionally dense items, implementing placement of food strategies, establishing of corner store network or co-op, as well other activities to enhance the economic development and access to healthy foods. In addition, a participatory model involving community residents can be an option of a low-cost high-investment strategy to build support and momentum for access to healthy foods in the underserved communities. A tool-kit with successful tailored approaches for the targeted underserved communities can serve as a model for similar areas throughout Broward County and can reduce cost of start-up time and replication of all assessments.

TOUCH Strategy 2 Recommendation Overview

- Utilize the established foundation from Phase 1 to develop a network of corner storeowners with goals related to increasing purchasing power, changing purchasing behaviors of residents by branding the corner store as a place you can get fruits, vegetables, and other nutritionally dense items, implementing placement of food strategies
- Establish a corner store network or co-op, as well other activities to enhance the economic development and access to healthy foods. In addition
- Utilize a participatory model involving community residents to build support and momentum for access to healthy foods in the underserved communities
- Create a tool-kit with successful tailored approaches for the targeted underserved communities to use as a model for similar areas throughout Broward County

TOUCH Strategy 3: Improve jurisdiction-wide nutrition policies and practices in early child care settings. This strategy was the third most efficacious of the strategies and scored well overall, however it was expensive and strategies to expand protocols system-wide with a less labor intensive approach would yield greater return on investments. Expansion and long-term sustainability of the train the trainer model, workshops, and menu revisions should be considered in Phase 2. Additionally, it is recommended to revisit strategies to engage Broward County as a key stakeholder of added child care sites to ensure all children in the community attending child care centers are impacted by healthier nutrition policies and practices. Furthermore, effectiveness is threatened if a broader ecological model to encourage healthy habits of young children and their families through targeted prevention programming is not addressed. Florida has been selected to be part of Nemours national initiative to promote healthy lifestyles in young children in childcare. TOUCH's ability to link to additional resources, such as Nemours early care and education funds, is a potential intervention point to impact the health of Broward County through establishments of a early learning collaborative and enhancements of current efforts.

TOUCH Strategy 3 Recommendation Overview

- Expand the train the trainer model, workshops, and menu revisions for long-term sustainability
- Revisit strategies to engage Broward County as a key stakeholder of added child care sites to ensure all children in the community attending child care centers are impacted by healthier nutrition policies and practices

HIA: Impacts of Allocating Resources towards Access to Healthy Foods Strategies

- Utilize a broader ecological model to encourage healthy habits of young children and their families through targeted prevention programming
- Link to additional resources, such as Nemours early care and education funds, as an intervention point to impact the health of Broward County through establishments of a early learning collaborative and enhancements of current efforts

TOUCH Strategy 4: Increase the number of designated Baby-Friendly Hospitals.

Recommendations to increase sustainability and reach with less 'leg-work' are optimal for this strategy. One possibility is to consider developing and educating elected officials on a model to provide tax incentives to baby-friendly hospitals. Other initiatives have provided mini-grants directly to the hospital to create policy, practice and environmental improvements within their hospital to support baby-friendly hospital efforts. In addition, exploring hospital accreditation procedures or additional non-tax incentives, which may motivate hospitals to assign the task of becoming baby-friendly hospitals, will place ownership on the institution and less of an economic burden on public health funded agencies.

TOUCH Strategy 4 Recommendation Overview

- Increase sustainability and reach with less 'leg-work'
- Consider developing and educating elected officials on a model to provide tax incentives to baby-friendly hospitals
- Provide mini-grants directly to the hospital to create policy, practice and environmental improvements within their hospital to support baby-friendly hospital efforts
- Explore hospital accreditation procedures or additional non-tax incentives

Supplementary Recommendations: Two additional strategies outlined in the National Association of Counties Access to Healthy Food Solutions to Create Healthy Counties compliment the TOUCH initiative and can be incorporated at low-cost into current work. For example, TOUCH is currently working on improving land use and transportation policies with an emphasis on increasing incidental physical activity through adoption and implementation of Complete Streets and Smart Growth principals. In addition, a written report to include recommendations from planning staff on how to integrate and foster local food system policies into current planning documents and initiatives has been provided by Access to Healthy Foods Strategy 2 partners. Therefore, expanding the approach to include technical assistance and audit policies to ensure a provision to protect farmland and connect neighborhoods to food options within these scopes can further the comprehensive agenda to address access to healthy foods. Although the second example is not as evidently complimentary with an existing contract, economic development strategies, such as commercial revitalization techniques to promote positive perceptions of underserved communities are aligned with TOUCH's multi-sector, innovative approach to addressing health disparities and enhancing the mental and physical well being of the community.

Supplementary Recommendation Overview

- Expand TOUCH's current work on improving land use and transportation policies with an emphasis on increasing incidental physical activity through adoption and implementation of Complete Streets and Smart Growth principals. Technical assistance and audit policies to ensure a provision to protect farmland and connect neighborhoods to food options within these scopes can further the comprehensive agenda to address access to healthy foods
- Utilize economic development strategies, such as commercial revitalization techniques to promote positive perceptions of underserved communities, which are aligned with TOUCH's multi-sector innovative approach to addressing health disparities and enhancing the mental and physical well-being of the community

While all strategies have a positive impact on health, the use of funding for less cost-effective or less efficacious strategies may hinder opportunities for reach to a greater percentage of the population. Implementation of these recommendations can help improve benefits of the strategies and ensure the most effective impact on health through this access to healthy food strategies.

5.0 Monitoring

The results of this Health Impact Assessment will be made available to community partners, participating organizations, and key stakeholders as a guide for assessing funding allocation impacts of programs, plans and policy. Organizations and individuals tasked with the role of expanding and leveraging the TOUCH initiative will have information at their disposal to aid in the decision-making process and to assist in determining the best strategies to remove perceived barriers to increase access to healthy foods in Broward County. In addition, the Florida Public Health Institute has committed to continue to collaborate closely in assessing health impact through TOUCH Phases 2-5. Monitoring of health determinants and outcomes affected by the assessment scales and implementation will allow for a better understanding of the outcomes of the strategies and recommendations.

6.0 Conclusion

As the role of public health practitioners becomes more comprehensive in research, program, and policy development it has become evident and vital to develop corresponding and appropriate tools to assess, monitor and evaluate programs and policies implemented to ensure best practice are established at a reasonable cost – which ultimately produces desired results. The efficiency and cost scoring model developed offers an innovative way to assess and evaluate programs and policy in a manner that preemptively mitigates any potential negative health outcomes while assuring funding has the opportunity to reach an optimal number of individuals within a target population.

This HIA assessed the Phase 1 strategies utilized in the TOUCH initiative to address access to healthy foods in Broward County. The HIA methodology used helped determine the cost, efficacy scores, and investment-yields for each strategy. The range of cost per person reached for the strategies was found to from \$1.21 to \$14.93 with a mean of \$8.89. Half of these strategies fell within the recommended \$10 per person. The second component of the investment yield coefficient, efficacy, which was scored, based on capacity, equitability, generalizability, and sustainability ranged from 9 to 20. Although all strategies help improve access to healthy foods, limited resources make it necessary towards maximizing the return of investment for each strategy. Strategy 1: Improve nutrition quality of foods and beverages served or available in schools consistent with the Institute of Medicine's (IOM) Nutrition Standards for Foods in Schools, was the least expensive initiative as well as the most efficacious. It was found to have an Investment Yield of 20+. Strategy 2: Increase accessibility, availability, affordability and identification of healthy foods in communities, including provision of full service grocery stores, farmers markets, small store initiatives, and restaurant initiatives, was found to have an

Investment Yield of 9+. Strategy 3: Improve jurisdiction-wide nutrition policies and practices in early childcare settings, was found to have an Investment Yield of 17-. Lastly, Strategy 4: Increase the number of designated Baby-Friendly Hospitals, was found to have an Investment-Yield of 18-.

Recommendations were made by strategy as to how to improve upon and expand the health impacts of the strategies to ensure the greatest amount individuals can be touched through these strategies. Recommendations for Strategy 1 included: expanding the opportunity to include additional school governing policies; connecting to national and local funders to expand the program; assisting schools in accessing resources both for policy and programmatic investments; building school wellness councils' capacity; incorporating an ongoing assessment of progress; utilizing current social media infrastructure as a platform to disseminate resources; and building capacity through district-wide incentives. Recommendations for Strategy 2 included: utilizing the establish foundation to develop a network of corner storeowners with goals related to access to healthy foods; establish a corner store network or co-op as well as other activities to enhance the economic development; utilizing a participatory model involving community residents to build support and momentum; and creating a tool-kit with successful tailored approaches for communities to utilize as models. Recommendations for Strategy 3 included: expanding the train the training model, workshops, and menu revisions; revisiting strategies to engage Broward as a key stakeholder of added child care sites; utilizing a broader ecological model to encourage healthy habits; and linking to additional resources. Recommendations for Strategy 4 included: increasing sustainability and reach with less 'leg-work'; considering developing and educated elected officials on a model to provide tax incentives; providing mini-grants directly to the hospitals; and exploring hospital accreditation procedures or additional non-tax incentives. Two other supplemental recommendations were made that help expand the scope and reach of the strategies currently in place. These include: expanding TOUCH's current work on improving land use and transportation policies with an emphasis on increasing incidental physical activity through adoption and implementation of Complete Streets and Smart Growth principals and developing a written report to include recommendations from planning staff on how to integrate and foster local food system policies into current planning documents and initiatives and utilize economic development strategies, such as commercial revitalization techniques to promote positive perceptions of underserved communities has been provided by Access to Healthy Foods Strategy 2 partners.

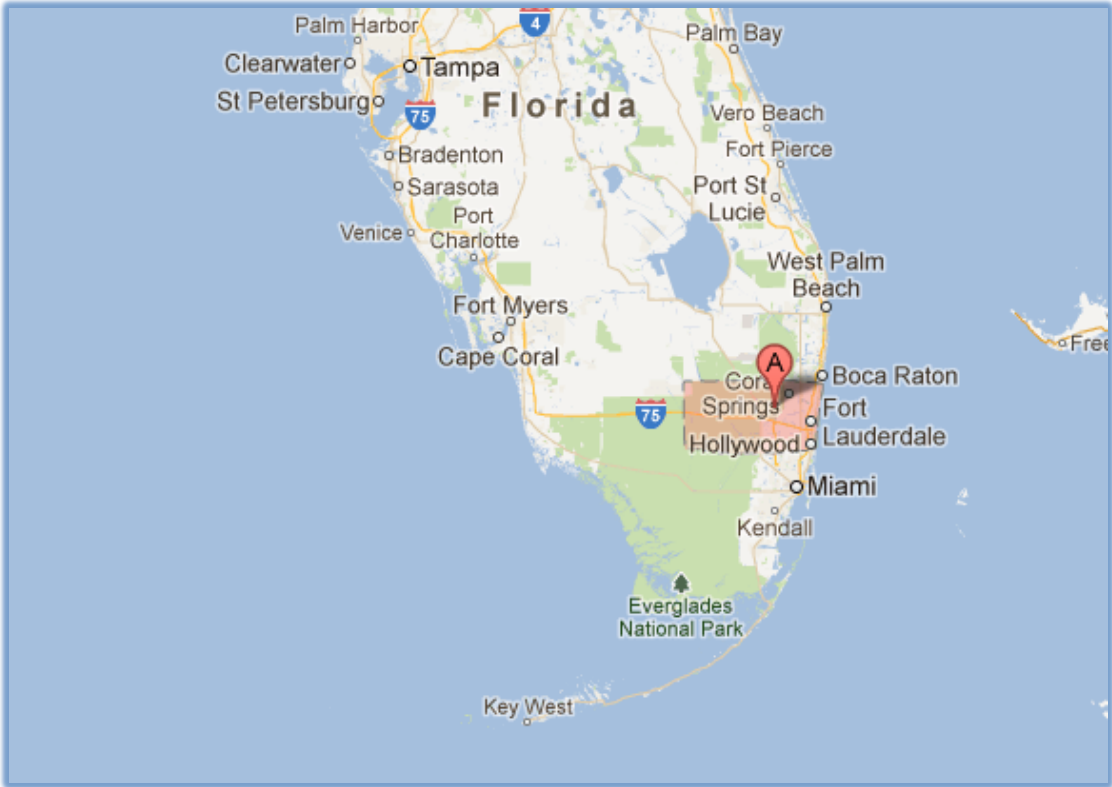
Although all strategies would appear to have a positive impact on health, the break down and interpretation of cost and efficacy components provide valuable input and recommendations for stakeholders on how to optimize funding for the continuation of increasing access to healthy foods in underserved communities in Broward County. Future monitoring and collaboration between FPHI and the Broward Regional Health Planning Council will help determine if recommendations were effective in improving health throughout the county.

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Appendix A – Broward County Florida - Location



Broward County, FL Google Maps

Appendix B – TOUCH Active Living & Healthy Eating Strategies

Active Living & Healthy Eating

Ensure Broward County residents, especially children, low-income, and those living in high-need communities have access to physical activity opportunities and healthy foods by:

- improving nutrition quality and increasing physical activity opportunities throughout the community
- Improving the quality and amount of physical education and physical activity during the school day and in afterschool programs through the YMCA SPARK (Sports, Play, and Active Recreation for Kids) Program.
- improving nutrition, physical activity, and screen time policies and practices in early child care settings;
- increasing the number of designated “Baby-Friendly” Hospitals;
- increasing access to healthy foods through urban farms, farmers markets and community gardens; and
- Increasing the accessibility, affordability, availability, and identification of healthy foods through the implementation of incentive programs supporting small store initiatives, new grocery store development, and farmers markets.

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