



## Healthy Kids, Healthy Futures Year Three Evaluation Report

# 2011

Northeastern University  
Children's Hospital Boston



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## Partner Acknowledgments

Healthy Kids, Healthy Futures Year Three activities were made possible through continued collaboration with community partners **Action for Boston Community Development (ABCD), Inc.** **Head Start** and the **City of Boston's Boston Centers for Youth & Families (BCYF)**; community collaborators **The Food Project (TFP)** and the **Boston Public Health Commission (BPHC)**; as well as the generous contributions of the institutional partners **Northeastern University** and **Children's Hospital Boston**.

This report is a formative evaluation of Healthy Kids, Healthy Futures Year Three activities conducted by the Healthy Kids, Healthy Futures Evaluation Team, an inter-institutional team of evaluators, statisticians, and faculty members from Northeastern University and Children's Hospital Boston.

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## Executive Summary

Healthy Kids, Healthy Futures (HKHF) was developed to respond to the needs of Boston's parents and early childcare providers for hands-on education delivered in a linguistically and culturally appropriate manner, and for a safe space for families with young children to be physically active. HKHF is an innovative, community-based, early childhood initiative that works to alter the preschool and community environments to make it easier for children, families, and early childcare staff to eat affordable, healthful foods and be physically active. HKHF combines evidence-based approaches to engage early childcare providers and families to promote healthy eating and increased physical activity. HKHF's major objective is to prevent childhood obesity by supporting health-promoting environments for preschool children living in the Fenway, Mission Hill, Jamaica Plain, and Lower Roxbury communities of Boston.

HKHF partners with Action for Boston Community Development (ABCD) Head Start, the City of Boston's Boston Centers for Youth & Families (BCYF), The Food Project (TFP), and the Boston Public Health Commission (BPHC) to provide programming, education, and training. Financial support for these activities is provided by Northeastern University and Children's Hospital Boston. Four Head Start programs (Jamaica Plain, Native American, Parker Hill–Fenway, and Roxbury) and one BCYF Recreation Facility (Madison Park) in the HKHF target neighborhoods have been engaged in programming activities.

HKHF has three overarching goals:

- (1) To improve the capacity of early childcare providers to prevent childhood overweight and obesity among preschool children and their families.
- (2) To increase opportunities for caregivers of young children to build skills that support informed and healthful food choices, increased physical activity, and reduced recreational screen time.
- (3) To expand opportunities for young children to be physically active with their families in safe, accessible, and age-appropriate settings.

HKHF achieves its goals by organizing efforts across two main programmatic components: (1) Nutrition and Physical Activity Promotion in Home and Childcare; and (2) Community-Based Physical Activity Promotion for Young Children and Families. HKHF's key messages focus on *increasing* fruit and vegetable consumption and physical activity and *reducing* sugar-sweetened beverage consumption and screen time. Every effort is made to ensure that programming and educational materials are provided in both English and Spanish.

## **Component 1: Nutrition and Physical Activity Promotion in Home and Childcare**

HKHF has engaged Head Start staff and parents/caregivers of preschool children through training, education, and capacity-building efforts. Programming in this area has included We Can! workshops for parents and food service staff, Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) workshops for early childcare staff, NAP SACC self-assessments and goal setting related to nutrition and physical activity environments, the Walk Challenge, Farmers' Market and Supermarket Healthy Eating Tours, the Cultural/Favorite Recipe Day working group, and Farm to School to Family.

## **Component 2: Community-Based Physical Activity Promotion for Young Children and Families**

To provide opportunities for family physical activity, HKHF partners with BCYF to offer the Saturday Open Gym program. Saturday Open Gym has made it easier for families with young children to be physically active together year-round in a safe, friendly, age-appropriate setting. Northeastern University students implement the weekly, 90-minute program that consists of: (a) family meet-and-greet and resources; (b) open family play; (c) mini-clinics; (d) large group games; and (e) the family closing circle.

## **Key Accomplishments and Findings To Date**

### **Nutrition and Physical Activity Promotion in Home and Childcare**

#### **NAP SACC**

In 2009, HKHF supported ABCD Head Start programs to complete the Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC). NAP SACC is a practice-based intervention designed to enhance policies, practices, and environments in child care by improving the nutritional quality of food served, amount and quality of physical activity, staff-child interactions, and facility nutrition and physical activity policies and practices and related environmental characteristics. Upon completion of the self-assessments, HKHF worked with Head Start staff at partner sites to set goals and create action plans related to the NAP SACC findings. In addition, HKHF offered trainings for all staff at Head Start partner sites using the workshop modules provided in the NAP SACC intervention toolkit. More than 70 Head Start staff members participated in the various components of the NAP SACC process.

#### **Cultural/Favorite Recipe Day Working Group**

"Cultural/Favorite Recipe Day" appears on the Head Start menu every Thursday and is designed to offer children culturally diverse foods that are suggested by parents/caregivers and Head Start staff members. Based on Year One NAP SACC assessment findings and ongoing conversations with ABCD Head Start staff, there was an overall interest to improve and diversify the Cultural/Favorite Recipe Day menu offerings. Between March and May 2010, HKHF convened a series of five working group meetings attended by 10 education, food-service, and case-management staff from the four HKHF partner program sites. The working group developed a protocol to introduce new cultural/favorite recipes, which included using a travelling suggestion box as well as developing a suggestion form and advertising template. In addition, six new recipes consistent with Head Start nutrition standards were introduced to the Cultural/Favorite Recipe Day summer menu at two Head Start program sites. In fall of 2010, an evaluation that used weighed plate waste to assess food consumption

indicated that culturally diverse foods were eaten at equal or greater levels compared with standardized recipes.

#### **We Can! Program**

We Can! is a series of four workshops developed by the National Institutes of Health that address energy balance, including healthy eating and physical activity. HKHF offered the We Can! workshop series to parents/caregivers at Head Start partner sites in Year One, to Head Start Food Service staff in Year Two, and again to Head Start parents/caregivers in Year Three. In addition, HKHF developed a Supermarket Healthy Eating Tour curriculum that was added to the final We Can! Workshop, with the objective of reinforcing messages to increase families' fruit and vegetable consumption and to offer strategies for healthful supermarket shopping on a budget. To date, more than 100 Head Start parents/caregivers and staff have participated in the We Can! program.

#### **Farm to School to Family**

The Farm to School to Family pilot initiative involved environmental changes that made low-cost, locally grown produce easily available to low-income families with young children. Program components included weekly vegetable boxes purchased at a subsidized rate, bilingual educational materials across HKHF's four key health messages, farm newsletters and recipes featuring the produce in the weekly box, and classroom field trips to the farm. The pilot was a collaborative endeavor between The Food Project, ABCD Head Start, and HKHF and took place between July and November 2011. During the course of the pilot, 87 Head Start families and staff members participated in the program. A mixed-method program evaluation included interviews with staff from The Food Project and Head Start as well as surveys with participating families. Interviews with project staff highlighted program strengths and challenges and outlined key areas in need of modification for future implementation. Overall, the program was viewed very positively by participants, with 71 percent reporting that the program changed their family's eating behaviors and 86 percent expressing a desire to participate again next year.

#### **Walk Challenge**

Since 2009, HKHF has offered the Walk Challenge program at Head Start partner sites three times, and participation has grown each year. To date, more than 200 Head Start caregivers and staff have participated in the Walk Challenge. Evaluation of the program has demonstrated that at post-test, participants reported higher levels of physical activity relative to a comparison group. In addition, staff participants reported statistically significant increases in physical activity at post-test relative to pre-test.

### **Community-Based Physical Activity Promotion for Young Children and Families**

#### **Saturday Open Gym**

Between summer of 2009 and summer of 2011, 243 different families comprising 275 caregivers and 430 children have attended Saturday Open Gym. An average of 55 different families attend Saturday Open Gym over the course of each 8–10 week cycle. Although most children are accompanied to Saturday Open Gym by their mothers (61 percent), many attend with their fathers (12 percent) or both parents (19 percent). Participants reflect the demographics of Boston residents bearing a disproportionate burden of chronic diseases, such as obesity (55 percent of participants identify themselves as African American/black and 31 percent of participants identify themselves as Hispanic/Latino).



Boston families are looking for low-cost opportunities to be active with their young children in safe, friendly, age-appropriate settings. Saturday Open Gym is structured as a drop-in program, with no ongoing commitment required from families. Families tend to return to Open Gym across cycles (30 percent of families have attended more than one cycle) and come to more than one Open Gym session during a cycle (30 percent of families have come to ≥ 50 percent of all Open Gym sessions in a given cycle).

Since 2009, 82 Northeastern University students (36 undergraduate students; 46 graduate students) have worked with the Saturday Open Gym program, contributing more than 2,200 service-learning and volunteer hours. HKHF engages a diverse group of students from multiple departments in several of Northeastern's colleges, including Arts, Media, and Design; Business Administration; Health Sciences; Science; and Social Sciences and Humanities.

### Future Directions

To our knowledge, HKHF is the only obesity prevention initiative targeting preschool children in the City of Boston. It represents a viable program partnership with unique and clearly defined partner assets and contributions, demonstrated by the development of a model that supports environmental changes in early childcare settings to promote healthy eating and physical activity, provides professional development opportunities for teachers, builds parent/caregiver skills, and engages university students and Boston families in community-based physical activity promotion. HKHF's partnership with Boston Centers for Youth & Families and ABCD Head Start uses existing infrastructures to reach families with young children directly and coordinates institutional resources across partners to provide opportunities for healthy eating and physical activity where young children and their families live, learn, and play.

Looking ahead, HKHF has identified several recommendations to consider as the initiative moves into Year Four and beyond:

1. Build awareness in the local community among agencies and individuals that can be allies and donors for HKHF.
2. Diversify HKHF's funding base beyond institutional funding partners to ensure sustainability.
3. Continue to provide direct services while transitioning to a technical assistance role that supports activities implementation through community partners.
4. Continue to partner with The Food Project and ABCD Head Start to explore ways of improving the Farm to School to Family model for future implementation.
5. Incorporate the Walk Challenge into the Saturday Open Gym program to encourage families to be physically active every day of the week.
6. Strengthen the evaluation aspects of HKHF to measure the impact of programmatic activities, including Farm to School to Family and Saturday Open Gym, on participants' eating and physical activity behaviors, respectively.
7. Explore ways of engaging with Head Start parents to remove televisions from children's bedrooms as part of a comprehensive approach to limit screen time.



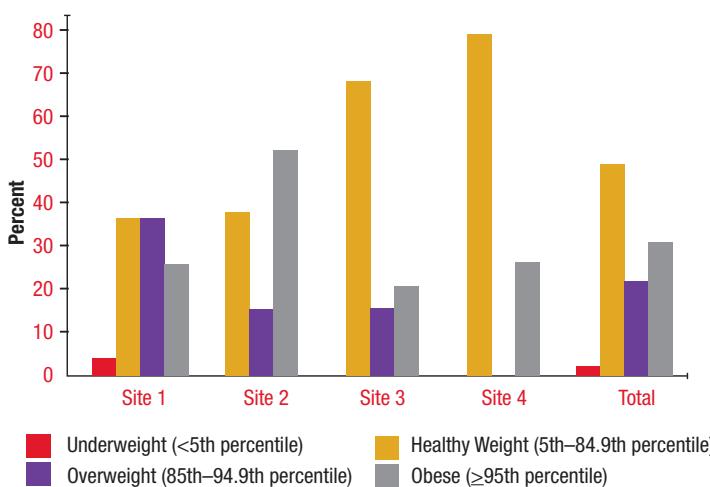
## Overview of Obesity in Preschool Children and the Importance of Engaging Families and Early Childcare Providers

Nationally, 21 percent of preschool-age children are overweight and obese (1) and minority children are disproportionately affected (1–3). This is particularly concerning because children who are obese in their preschool years are more likely to be obese as adolescents and adults (4) and to develop serious medical conditions, including type 2 diabetes, hypertension, and sleep apnea (5, 6). Preventing childhood obesity is a national priority as evidenced by the Child Nutrition Reauthorization Act signed into law by President Barack Obama in December 2010 and First Lady Michelle Obama's Let's Move! campaign. Involving parents, other primary caregivers and teachers of young children in preventing excess

weight in preschool children is particularly important given the level of caregiving these individuals provide and their power as influential role models (7, 8). Despite the high prevalence of obesity among preschool children, few studies have focused on engaging families and teachers of young children in school and community settings (8–14). Establishing obesity prevention interventions for Head Start families and staff is important because Head Start is the nation's largest federally funded early childhood education program (15), reaching a significant proportion of the disadvantaged young children most vulnerable to childhood obesity.

Reducing childhood obesity requires prevention strategies that focus on environments and policies promoting physical activity and a healthy diet for families, childcare centers, and communities. Healthy Kids, Healthy Futures focuses its work across the environments where children live, learn, and play, and works with early childcare providers to bridge the gaps between nutrition and physical activity policies and implementation.

**Figure 1. BMI Status of Head Start Children Whose Caregivers Have Participated in HKHF Activities (N=61)**





## Healthy Kids, Healthy Futures Overview

### Background

Planning for Healthy Kids, Healthy Futures (HKHF) was initiated by the founding partners—Northeastern University, Children’s Hospital Boston, and the Boston Red Sox—and involved conversations with community organizations and residents to learn about their needs and concerns regarding childhood obesity. During 2007 and 2008, focus groups were conducted at the Greater Boston YMCA Training Center and Parker Hill–Fenway Head Start. Focus group participants ranged in age, race, and residence with the majority living in the City of Boston. Sample findings included:

- parent safety concerns with outside play time.
- food accessibility is impacted by socioeconomic class and transportation.
- neighborhoods determine what food and services are available.
- many families cannot afford the cost of fresh food.

In addition, meetings were conducted with Child Care Choices of Boston, the YMCA, and the Boston Public Health Commission to learn about the range of services focused on childhood obesity prevention across the city. These meetings helped the HKHF partners identify the preschool age group and their parents/caregivers as its target population and develop programming to effectively meet their needs.

### What is Healthy Kids, Healthy Futures?

HKHF aims to prevent childhood obesity by supporting health-promoting environments where young children live (home), learn (preschool/child-care) and play (community). HKHF is among the few obesity prevention

initiatives to specifically focus on preschoolers. In an effort to create greater opportunities for wellness among Boston families and to address disparities in the rates of childhood obesity, HKHF partners with ABCD Head Start and the City of Boston’s Boston Centers for Youth & Families (BCYF) to provide programming, education, and training.

In Year Three, HKHF continued to build upon the goals identified in Year One. These goals are:

**Goal 1:** To improve the capacity of early childcare providers to prevent childhood overweight and obesity among preschool children and their families.

**Goal 2:** To increase opportunities for caregivers of young children to build skills that support informed and healthful food choices, increased physical activity, and reduced recreational screen time.

**Goal 3:** To increase opportunities for young children to be physically active with their families in safe, accessible, and age-appropriate settings.

To achieve these goals, HKHF uniquely combines evidence-based approaches to engage early childcare providers and caregivers to promote healthy eating and increased physical activity among preschool children and their parents/caregivers living in the Fenway, Mission Hill, Jamaica Plain, and Lower Roxbury communities of Boston. HKHF’s key messages focus on increasing fruit and vegetable consumption, reducing sugar-sweetened beverage consumption, increasing physical activity, and decreasing screen time. HKHF’s programmatic efforts are supported by a strong inter-institutional partnership that has identified two main program components as described on the following page.

## Component 1: Nutrition and Physical Activity Promotion in Home and Childcare

To support improvements in the food and physical activity environments of preschool children, HKHF works with four Head Start programs in the Fenway, Lower Roxbury, Mission Hill, and Jamaica Plain neighborhoods across three areas, as outlined below. Year Three activities in each area have included:

1. Head Start Goal Setting and Implementation
  - Farm to School to Family initiative
2. Head Start Staff Training and Professional Development
  - Spring Walk Challenge
3. Wellness Education for Caregivers of Head Start Children
  - National Nutrition Month video screenings
  - Spring Walk Challenge
  - We Can! Program with Supermarket Healthy Eating Tours
  - Sharpen Your Skills workshops

## Component 2: Community-Based Physical Activity Promotion for Young Children and Families

To provide opportunities for family physical activity, HKHF partners with BCYF to run the Saturday Open Gym, supporting the capacity of BCYF to provide family-active programming. Three core areas support HKHF's Saturday Open Gym program:

1. Student Engagement
2. Family Engagement
3. Resource Development and Community Outreach

## HKHF Activities Snapshot

Area	Activity Target	Year 1	Year 2	Year 3
<b><i>Component 1: Nutrition and Physical Activity Promotion in Home and Childcare</i></b>				
Head Start Goal Setting and Implementation	Program	<ul style="list-style-type: none"> <li>• NAP SACC Self Assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural/Favorite Recipe Day           <ul style="list-style-type: none"> <li>» Working Group</li> <li>» Evaluation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Farm to School to Family           <ul style="list-style-type: none"> <li>» Input and Planning</li> <li>» Veggie Box Pilot</li> <li>» Evaluation</li> </ul> </li> </ul>
Head Start Staff Training and Professional Development	Head Start Staff	<ul style="list-style-type: none"> <li>• NAP SACC Training</li> <li>• NAP SACC Self-Evaluation</li> <li>• Fall Walk Challenge</li> <li>• Influencing caregivers with motivational interviewing (training for education staff)</li> </ul>	<ul style="list-style-type: none"> <li>• We Can! for Food Service Staff</li> <li>• Spring Walk Challenge</li> <li>• Healthy Eating Tours           <ul style="list-style-type: none"> <li>» Farmers' Markets</li> <li>» Supermarkets</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Spring Walk Challenge</li> </ul>
Wellness Education for Caregivers of Head Start Children	Head Start Caregivers	<ul style="list-style-type: none"> <li>• We Can!</li> <li>• We Can! Focus Groups</li> </ul>	<ul style="list-style-type: none"> <li>• Nutritionist Is In           <ul style="list-style-type: none"> <li>» Healthy Family Fun</li> <li>» Child Development</li> <li>» Celebrating You! Parent Power</li> <li>» Your Child's Development and Screen Time</li> </ul> </li> <li>• Spring Walk Challenge</li> <li>• Healthy Eating Tours           <ul style="list-style-type: none"> <li>» Farmers' Markets</li> <li>» Supermarkets</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• National Nutrition Month Video Screenings</li> <li>• Spring Walk Challenge</li> <li>• We Can! Program with Supermarket Healthy Eating Tour</li> <li>• Sharpen Your Skills Workshop</li> </ul>
<b><i>Component 2: Community-Based Physical Activity Promotion for Young Children and Families</i></b>				
Saturday Open Gym Student Engagement	Northeastern University Students	Saturday Open Gym Student Training Program	Saturday Open Gym Student Training Program	Saturday Open Gym Student Training Program
Saturday Open Gym Family Engagement, Resource Development and Outreach	Families with young children	Two cycles of Saturday Open Gym: Summer and Fall 2009	Three cycles of Saturday Open Gym: Winter/Spring, Summer, and Fall 2010	Three cycles of Saturday Open Gym: Winter/Spring, Summer, and Fall 2011



## Year Three Evaluation: Activities and Key Findings

### Nutrition and Physical Activity Promotion in Home and Childcare

#### 1. Head Start Goal Setting and Implementation

##### Farm to School to Family Initiative

Farm to School to Family (F2S2F) is a pilot initiative designed to make low-cost, locally grown produce easily available to low-income families with young children. Program components (see Table 1) included weekly farm shares/veggie boxes purchased at a subsidized rate, bilingual educational materials across HKHF's four key health messages related to childhood obesity prevention, farm newsletters and recipes featuring the produce in the weekly box, and classroom field trips to the farm. The pilot was a collaborative endeavor between The Food Project (TFP), Action for Boston Community Development (ABCD) Head Start, and HKHF. The pilot took place between July and November 2011. During the course of the program pilot, 42 Head Start families and 45 Head Start staff members received farm shares/veggie boxes, for a total of 87 program participants. The program development, implementation, and evaluation are illustrated in the timeline on the next page.

##### Key Findings

A mixed methods evaluation of the Farm to School to Family pilot initiative was conducted during the summer of 2011. Evaluation procedures included open-ended interviews with staff from Head Start and The Food Project and surveys that were administered to participating parents. Evaluation results are summarized below.

##### Summary of Interviews with Staff from Head Start and The Food Project

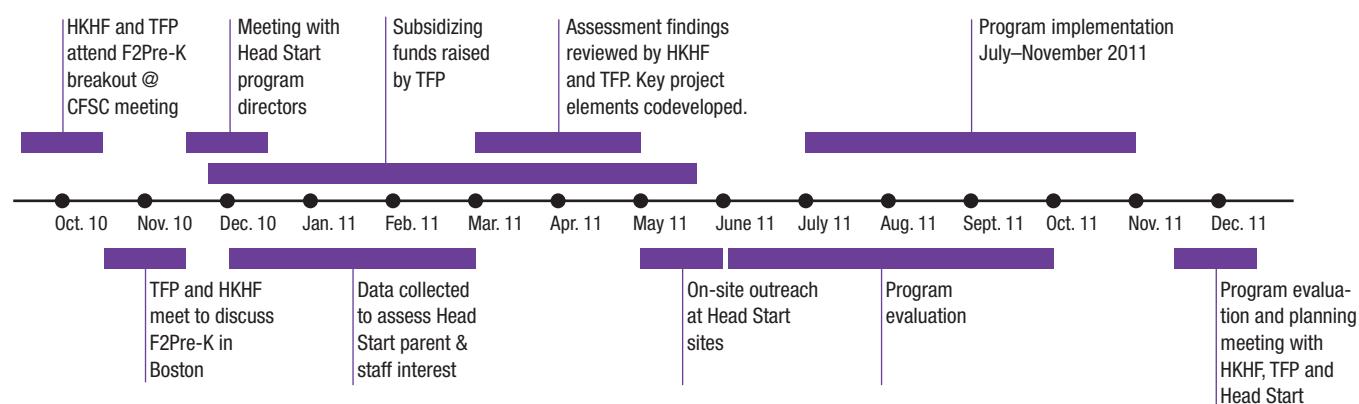
Three Head Start staff members who served as site coordinators for the Farm to School to Family pilot program were interviewed by a doctoral student at Northeastern University to learn about their experiences with the program. Each staff member was asked to describe strengths and challenges associated with the program, to estimate how much time was spent each week on the program, and to provide suggestions for program improvements. Site coordinators reported spending approximately 1.5 to 2 hours per week on the program; their time was spent recruiting families, receiving farm share/veggie box deliveries, making reminder pick-up and payment calls, and collecting payments. All three site coordinators either agreed ( $n = 1$ ) or strongly agreed ( $n = 2$ ) that the program was important for families at their Head Start site. When asked if it is worthwhile to invest the time and space required to carry out the program, one coordinator strongly agreed, one agreed, and one disagreed. At the site where the coordinator disagreed, she indicated that it was difficult to get the parents to pick up the food and to make the payments (records kept by site coordinators indicated that 63 percent of parent boxes were picked up in July and August, compared to 96 percent of staff boxes). When asked if they thought the program should be continued the following year, one coordinator strongly agreed, one agreed, and one was neutral. Table 2 includes a summary of their views on program strengths and challenges, accompanied by sample quotes.

In addition, three staff members from The Food Project were interviewed to learn about their experiences with the program. Each staff member was asked to describe program strengths and challenges and to provide suggestions for improvements. Table 3 includes a summary of their views on the program's strengths and weaknesses, accompanied by sample quotes.

**Table 1. Farm to School to Family Key Program Elements**

<b>Mechanism to offer fresh produce grown by The Food Project (TFP) at a low-cost, plus bilingual educational materials and classroom farm trips</b>	1. Weekly farm shares/veggie boxes for Head Start parents and staff. 2. Summer field trips to TFP's urban learning farm. 3. Weekly, bilingual farm newsletter with recipes. 4. Bilingual nutrition education materials across four thematic areas (1) promoting fruit and vegetable consumption; (2) decreasing sugar-sweetened beverage intake; (3) increasing family physical activity; and (4) decreasing screen time.	<b>Pricing and payment</b>	1. Full value of each farm share/veggie box: \$15.00/week. 2. Participants could purchase the boxes for \$5.00/week for the season (July to November 2011). 3. The \$10.00 difference between the value and cost of each box was covered through grants and donations raised by TFP, as well as a sponsorship option added to the cost of full-price Community Supported Agriculture (CSA) shares. 4. Payment was structured as a monthly payment due on the third pick-up week prior to the following month. 5. Payment options were SNAP (food stamps), cash, check, or money order. 6. Given the pilot nature of the program and the fact that individuals did not know what to anticipate in terms of produce they would receive, individuals had the option to sign up for one or multiple months.
<b>On-site staffing and support at ABCD Head Start program sites</b>	1. Three site coordinators (one per site) designated by the Head Start program director. 2. Site coordinators recruited families, received farm share/veggie box deliveries, made reminder pick-up and payment calls, collected cash and check payments, and provided ongoing feedback on how to improve the pilot. 3. Communication between site coordinators and TFP was managed by the HKHF project manager.	<b>Delivery logistics</b>	1. Weekly drop-off was scheduled for Tuesday afternoons at each site. 2. Drop-offs at Head Start sites where $\geq 10$ individuals enrolled. 3. When site enrollment was $< 10$ individuals, participants picked up their box at a nearby Head Start site that did receive delivery.
<b>Outreach to parents/caregivers and Head Start staff</b>	1. TFP conducted on-site outreach during pick-up and drop-off times at each Head Start site to inform parents and staff about the program. 2. After on-site outreach, each Head Start program received application packets for each child and staff member and flyers to post at the site.		

**Figure 2. Farm to School to Family Timeline**



**Table 2. Farm to School to Family Program Strengths and Challenges Identified by Head Start Staff**

Program Strengths	Program Challenges
<ol style="list-style-type: none"><li>1. The program provides a new approach to educate families about how to cook better and healthier.</li><li>2. Families have opportunities to eat vegetables in new ways.</li><li>3. The prices and quantity of the produce were good.</li><li>4. Participants can swap produce.</li><li>5. The produce is grown without pesticides.</li><li>6. Organizational tools made it easier to implement the program (e.g., list of the participants' names/contact information, farm information, educational handouts, and the schedule for collecting money).</li><li>7. Deliveries were reliable (timing and the amount of produce received).</li><li>8. When a site had a kitchen and food was not picked up, it could be used for school meals.</li></ol>	<ol style="list-style-type: none"><li>1. Some parents did not pick up their veggie boxes (e.g., children were not in the program during the summer, and the parents were not coming every day to the site).</li><li>2. Coordinators felt some discomfort with collecting money and reminding families about payments.</li><li>3. Parents did not bring back the reusable bags for the produce.</li></ol>

**“It is my pleasure serving [foods] to the families because...they can get a better quality of life with this program.”**

**“[Quality and the value of the produce that was in the boxes was] great...for the price, it's very cheap. You can't beat that.”**

**“... I think the most important [part of the program] to the parents is sharing and learning new recipes.”**

**Table 3. Farm to School to Family Program Strengths and Challenges Identified by The Food Project Staff**

Program Strengths	Program Challenges
<ol style="list-style-type: none"><li>1. Determined how to get the right amount of produce in the boxes and do the deliveries.</li><li>2. Newsletters produced and translated into Spanish.</li><li>3. Participants were really enthusiastic about what they got, and they particularly liked receiving fruit.</li><li>4. Pleased with the number of community partners and their level of interest.</li><li>5. Selection and amount of vegetables being received.</li></ol>	<ol style="list-style-type: none"><li>1. Disconnects between the farmers' and participants' perspectives regarding variability in the quantity of food delivered each month.</li><li>2. Recruitment difficulties resulting in lower participation in August and September, which were the two months with the most produce.</li><li>3. Challenges with month-to-month and SNAP (food stamps) payments.</li><li>4. At one site, food spoiled when parents did not pick it up.</li><li>5. Communicating with multiple Head Start sites.</li><li>6. Challenges associated with staff turnover at the farm resulting in inconsistent communication between Head Start and the farm.</li></ol>

**“People are unfamiliar with the produce, and . . . there's a level of education that needs to happen. Everyone wants tomatoes, corn, watermelon, peaches every week, and that's not how farms work. The grocery stores have distorted our understanding of seasonality. Not all [participants] are familiar with what grows in Massachusetts and that not everything is available every week . . . so we need to do more education, so people aren't disappointed and [they] understand that actually they're getting the freshest produce they could possibly get, but they're not going to get the same thing every week.”**

**“... for the farm, [the program's] been great because we've been able to know where the produce is going. Sometimes we give a lot of produce away and we're not really sure what happens to it. . . And it just feels good to know...[the produce is] going to families.”**

## Caregivers' Experiences with the Farm to School to Family Program

In addition to interviewing staff from Head Start and The Food Project, caregivers who began the program in July 2011 were interviewed before and during their participation in F2S2F to understand their perceptions about the program and the extent to which the program affected their families' health behaviors. Of the 30 caregivers that received farm shares/veggie boxes in July 2011, 14 (47 percent) participated in the interviews both before and six weeks into the program. Surveys were administered in English and Spanish based on the caregivers' preferred language.

At pre-test, a brief survey was administered to assess caregivers' readiness to change their family's fruit and vegetable consumption and the number of nights they cook dinner at home, prepare vegetables for dinner, and eat out. Parents were also asked about their Head Start child's frequency of fruit and vegetable consumption, sugar-sweetened beverage consumption, physical activity participation, daily screen time usage, and if their child had a television in his/her bedroom. Approximately two months later (i.e., six weeks into the program), parents were administered a similar survey that contained all of the items described above, plus 18 closed-ended questions pertaining to their perceptions about the program and two open-ended questions, which asked them to comment on how their family might have benefitted from the produce boxes and if they had any other thoughts about the program they wanted to share. Survey response data are organized in Tables 4 and 5.

There were no significant differences between pre- and post-test assessments. At pre-test, the majority of parents reported being in the maintenance stage in terms of their readiness to change their family's fruit and vegetable consumption, meaning they had taken steps to increase their family's consumption of these foods and they had been doing this for at least six months. Caregivers reported cooking dinner at home most nights of the week and cooking a vegetable as part of dinner on most nights. On average, they reported that their child in Head Start typically eats fruits and vegetables 4.5 times per day, consumes sugar-sweetened beverages 1.57 times per day, and spends 2.29 hours per day using the computer and watching TV and DVDs. On average, caregivers reported that their Head Start child is physically active for at least 60 minutes per day, five days per week.

As can be seen in Table 5, most parents held positive perceptions about the program, with 86 percent reporting a willingness to participate in the program again next year. All caregivers reported that their family benefitted from the F2S2F program. The most frequent type of response to this open-ended question regarding how the family benefitted was that the program helped their family eat more fruits and vegetables ( $n = 8$ ). Other ways the family benefitted included the low cost of the program ( $n = 5$ ), the program helped the family obtain fresh fruits and vegetables frequently ( $n = 5$ ), the program helped the family eat a wider variety or new types of produce ( $n = 4$ ), the program helped improve the family's health ( $n = 2$ ), and the caregiver learned new recipes ( $n = 1$ ). In terms of other feedback about the program, several parents indicated they wanted more fruit ( $n = 6$ ) and more variety ( $n = 3$ ) in the boxes.

**Table 4. Caregiver ratings of child and family health behaviors before and during Farm to School to Family (F2S2F) (N=14)**

	Pre-Test Mean (SD)	Post-Test Mean (SD)
<b>Readiness to Change F&amp;V Consumption</b>		
<b>Precontemplation</b>	<b>7.1%</b>	<b>7.1%</b>
<b>Contemplation</b>	<b>0%</b>	<b>0%</b>
<b>Preparation</b>	<b>7.1%</b>	<b>14.3%</b>
<b>Action</b>	<b>21.4%</b>	<b>21.4%</b>
<b>Maintenance</b>	<b>64.3%</b>	<b>57.1%</b>
<b>No. of nights dinner at home/week</b>	<b>5.57 (1.79)</b>	<b>5.57 (1.45)</b>
<b>No. of nights vegetables are cooked for dinner/week</b>	<b>4.43 (1.95)</b>	<b>4.79 (1.89)</b>
<b>No. of nights eat dinner prepared outside the home/week</b>	<b>1.00 (0.78)</b>	<b>1.00 (0.88)</b>
<b>Frequency of child's F&amp;V consumption/day</b>	<b>4.50 (2.41)</b>	<b>4.36 (2.53)</b>
<b>Frequency of child's SSB intake/day</b>	<b>1.57 (1.45)</b>	<b>1.50 (0.76)</b>
<b>Daily child screen time (in hours)</b>	<b>2.29 (0.99)</b>	<b>2.21 (1.31)</b>
<b>Frequency of child PA (&gt; 60 minutes/day)/week</b>	<b>5.07 (2.34)</b>	<b>5.79 (1.42)</b>
<b>TV in child's bedroom</b>	<b>21.4%</b>	<b>35.7%</b>

Notes: F&V = fruit and vegetables; SSB = sugar-sweetened beverages; screen time = viewing TV and DVDs, playing videogames, and using the computer; PA = physical activity.

**Table 5. Caregiver perceptions of the Farm to School to Family (F2S2F) program (N=14)**

	<i>Agree or Strongly Agree</i>	<i>Neither Agree nor Disagree</i>	<i>Disagree or Strongly Disagree</i>
<b>The fruits and vegetables were fresh and high quality.</b>	100%	0%	0%
<b>My child/children enjoyed the fruits and vegetables.</b>	93%	0%	7%
<b>I was pleased with the amount of food I received most weeks.</b>	79%	14%	7%
<b>I used all of the fruits and vegetables I received most weeks.</b>	93%	0%	7%
<b>I was happy with the types of fruits and vegetables I received.</b>	79%	21%	0%
<b>I would have liked to receive more fruits and vegetables each week.</b>	71%	7%	21%
<b>I liked the recipes.*</b>	80%	20%	0%
<b>My children liked the recipes.*</b>	40%	60%	0%
<b>The recipes were easy to use.*</b>	80%	0%	20%
<b>I plan to use the recipes in the future.*</b>	58%	8%	33%
<b>The pick-up days and times were convenient.</b>	86%	0%	14%
<b>The packaging of the fruits and vegetables was appropriate.</b>	93%	0%	7%
<b>The cost of the fruits and vegetables was a good value.</b>	93%	7%	0%
<b>Overall, this program has made a difference to my family's eating behaviors.</b>	71%	14%	14%
<b>I would be willing to participate in the program again next year.</b>	86%	0%	14%

Notes: \*36 percent of caregivers reported using the recipes that came with the boxes. Only those caregivers who reported using the recipes were asked the four questions about their experiences with the recipes.

## 2. Wellness Education for Caregivers of Head Start Children

### National Nutrition Month Video Screenings

In March 2010, HKHF arranged video screenings for parents/caregivers at Head Start partner sites in celebration of National Nutrition Month. The video screenings were designed to provide additional educational opportunities for parents/caregivers around HKHF's key health messages and were developed in response to suggestions from program directors at Head Start partner sites and the Head Start nutrition coordinator. A Northeastern University student developed a list of potential videos, and the Head Start program directors and nutrition coordinator selected the videos that they thought would be most relevant for parents/caregivers.

### Key Findings

All four Head Start partner sites hosted video screenings during the month of March 2010. Films presented included *Fat: What No One is Telling You* and *Super Size Me*. Videos were shown over two mornings after student drop-off and following a parent breakfast hosted by Head Start partner sites as part of their National Nutrition Month activities. On the second day, at the conclusion of the video, HKHF staff led a group discus-

sion about nutrition topics raised in the videos. A total of 22 Head Start parents/caregivers (n=17) and staff (n=5) participated in the video screenings.

### We Can! Parent/Caregiver Program with Supermarket Healthy Eating Tours

We Can! is a series of four workshops developed by the National Institutes of Health (<http://www.nhlbi.nih.gov/health/public/heart/obesity/wecan/>). The We Can! workshops address energy balance, including healthy eating and physical activity, and were designed for parents of school-aged children. HKHF received positive feedback from We Can! workshop series provided to Head Start parents/caregivers in Year One, and to Head Start Food Service staff in Year Two. As a result, in Year Three HKHF again provided the We Can! workshop series to Head Start parents/caregivers at two HKHF partner program sites. The series of four workshops took place in October and November 2011. At the end of the four sessions, participants received a certificate of completion and a \$20 gift card to a local grocery store. The final session was adapted to include a Supermarket Healthy Eating Tour. The Supermarket Healthy Eating Tour curriculum was developed and successfully piloted by HKHF in Year Two, with the objective of reinforcing HKHF's message to increase family fruit and vegetable

consumption and to offer strategies for healthful supermarket shopping on a budget.

To evaluate the We Can! program, a questionnaire that accompanies the We Can! curriculum called “Tell Us What You Think!” was administered in Spanish and English before and after the We Can! program was delivered. The survey was used to assess knowledge, attitudes, and behaviors parents/caregivers had prior to the workshops and any changes that resulted from their participation.

#### Key Findings

Participant and survey data were not available at the time of report publication.

#### Sharpen Your Skills Workshops

In November 2011, a Sharpen Your Skills cooking class was offered to Head Start parents/caregivers at three HKHF partner program sites. Classes were taught by Head Start nutrition and food service staff members, and covered basic cooking topics including food safety and fall vegetable preparation.

#### Key Findings

Participant data were not available at the time of report publication.

### 3. Head Start Staff Training and Professional Development and Wellness Education for Caregivers of Head Start Children

#### Spring Walk Challenge

HKHF has offered the Walk Challenge program at Head Start partner sites since 2009, and the program has become increasingly popular (Figure 3). In Year Three, HKHF coordinated a six-week Spring Walk Challenge between April and June 2011 for staff and parents/caregivers at each of the four HKHF partner program sites. Based on feedback from Year Two, participants had the opportunity to walk in paired teams or individually. Participants walking in teams had the goal of walking a total distance of 210 miles and individuals had the goal of walking 130 miles. All participants received a walking kit and a pedometer. Participants completing the Walk Challenge received a certificate of participation and were entered into a raffle to win various prize items, including a free month of farm shares/veggie boxes through the Farm to School to Family initiative. All participants were asked to complete a pre- and post-Walk Challenge survey to determine changes in physical activity and screen time before and after the Walk Challenge. A comparison group that did not participate in the Walk Challenge, but that also completed a survey before and after the period of time the Walk Challenge took place, was used to measure the impact of the Walk Challenge on physical activity and screen time for participants.

#### Key Findings

The Walk Challenge survey findings below are based on comparisons between respondents (Head Start parents/caregivers and staff) from the four HKHF partner program sites (which we refer to as the “HKHF group”) and respondents (Head Start parents/caregivers and staff) from a non-HKHF partner program site (which we refer to as the “Comparison group”). Survey results from the spring 2010 and spring 2011 Walk Challenges are combined. The number of parents/caregivers and staff in both groups for 2010 and 2011 is shown in Table 6.

Figure 3. Head Start Walk Challenge Participation, 2009–2011

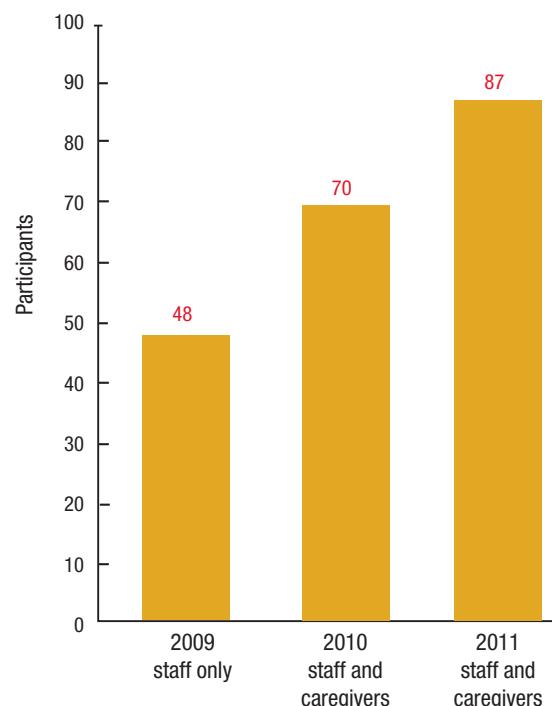


Table 6. Number of Walk Challenge Participants in HKHF and Comparison Groups in Spring 2010 and Spring 2011 (N=188)

	Caregivers	Staff	Total
HKHF Group	49	108	157
Comparison Group	15	16	31

There were no significant differences between parents/caregivers (Table 7) and staff (Table 8) in the HKHF and Comparison groups pre–Walk Challenge. In contrast, post–Walk Challenge comparisons between the HKHF and Comparison groups showed significant differences in the average number of days over the last seven days and over a typical week in which both parents/caregivers and staff reported being physically active for at least an hour. In addition, as seen in Figure 4, post–Walk Challenge, staff in the HKHF group reported statistically significant increases in the number of days over the last week that they were physically active for at least an hour, as compared to staff in the Comparison group, independent of physical activity level pre–Walk Challenge. A similar, although not statistically significant, trend was observed for parents/caregivers.

**Table 7. Pre and Post Means and Standard Deviations (SD) of Key Outcomes among PARENTS/CAREGIVERS Participating in the Walk Challenge in 2010 and 2011**

	PRE–Walk Challenge			POST–Walk Challenge		
	HKHF Group (N=49)	Compari- son Group (N=15)	P Value^	HKHF Group (N=49)	Compari- son Group (N=15)	P Value^
Activity	Mean (SD)	Mean (SD)	P Value^	Mean (SD)	Mean (SD)	P Value^
<b>Physical Activity</b>						
No. days active ≥60 min/day over <i>last 7 days</i>	4.46 (2.05)	3.81 (2.56)	0.41	5.26 (1.65)	3.92 (1.98)	0.04
No. days active ≥60 min/day over a <i>typical week</i>	4.89 (1.67)	3.82 (2.04)	0.09	5.19 (1.58)	3.83 (2.04)	0.02
<b>Television Viewing</b>						
No. hrs/day spent viewing TV, <i>weekdays</i>	2.37 (1.18)	3.27 (2.41)	0.45	2.27 (1.23)	3.55 (1.81)	0.02
No. hrs/day spent viewing TV, <i>weekends</i>	2.77 (1.54)	3.82 (1.09)	0.07	2.57 (1.85)	3.64 (1.96)	0.04

<sup>^</sup>P Values represent the differences in means between the HKHF and comparison groups pre– and post–Walk Challenge respectively

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**Table 8. Pre and Post Means and Standard Deviations (SD) of Key Outcomes among STAFF Participating in the Walk Challenge in 2010 and 2011**

	PRE–Walk Challenge			POST–Walk Challenge		
	HKHF Group (N=49)	Compari- son Group (N=15)	P Value^	HKHF Group (N=49)	Compari- son Group (N=15)	P Value^
Activity	Mean (SD)	Mean (SD)	P Value^	Mean (SD)	Mean (SD)	P Value^
<b>Physical Activity</b>						
No. days active ≥60 min/day over <i>last 7 days</i>	4.88 (2.13)	4.36 (1.86)	0.27	5.68 (1.73)	4.36 (2.10)	0.01
No. days active ≥60 min/day over a <i>typical week</i>	5.22 (1.84)	4.43 (2.17)	0.18	5.66 (1.69)	4.14 (1.51)	<0.0001
<b>Television Viewing</b>						
No. hrs/day spent viewing TV, <i>weekdays</i>	2.62 (2.03)	3.28 (2.20)	0.18	2.41 (1.51)	2.47 (1.85)	0.99
No. hrs/day spent viewing TV, <i>weekends</i>	3.17 (2.32)	3.93 (1.94)	0.14	3.13 (2.08)	2.83 (2.33)	0.62

<sup>^</sup>P Values represent the differences in means between the HKHF and comparison groups pre– and post–Walk Challenge respectively

## Television in the Bedroom

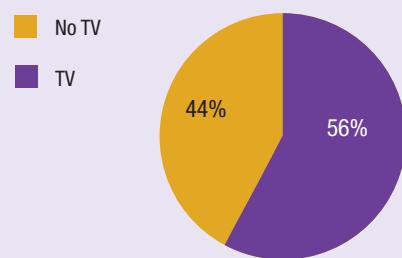
HKHF conducted two separate surveys with caregivers at Head Start partner sites that asked about the presence of a television in the bedroom of their preschool child. One group of caregivers was asked as part of the survey accompanying the Walk Challenge in spring 2010 and spring 2011. Another group was asked as part of a Readiness to Change survey conducted with caregivers of three year olds during Head Start orientation in fall 2011. Among both groups of caregivers, a majority (56 percent and 68 percent) reported that there was a television in their preschool child's bedroom (Figures 5 and 6).

The presence of televisions in the bedrooms of preschool children is concerning for a number of reasons. Having a television in the bedroom has been associated with increased rates of obesity among preschool children (16), sleep and behavioral

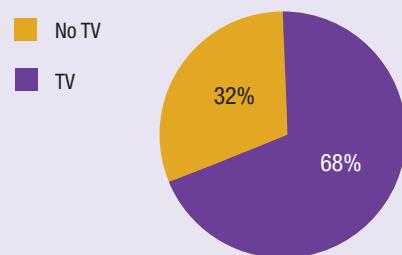
problems among kindergarteners (17), and reductions in academic-achievement scores among elementary school students (18).

The American Academy of Pediatrics (AAP) recommends that parents avoid placing televisions in their child's bedroom. The AAP also recommends that children view less than two hours of screen time per day, and that parents avoid television and video viewing altogether for children under two years old (19). As having a television in the bedroom is associated with increased television viewing for children (20), promoting the removal of televisions from children's bedrooms targets both screen time and its associated negative health outcomes. In coming years, HKHF will explore ways of engaging with parents to remove televisions from children's bedrooms as part of a comprehensive approach to limit screen time.

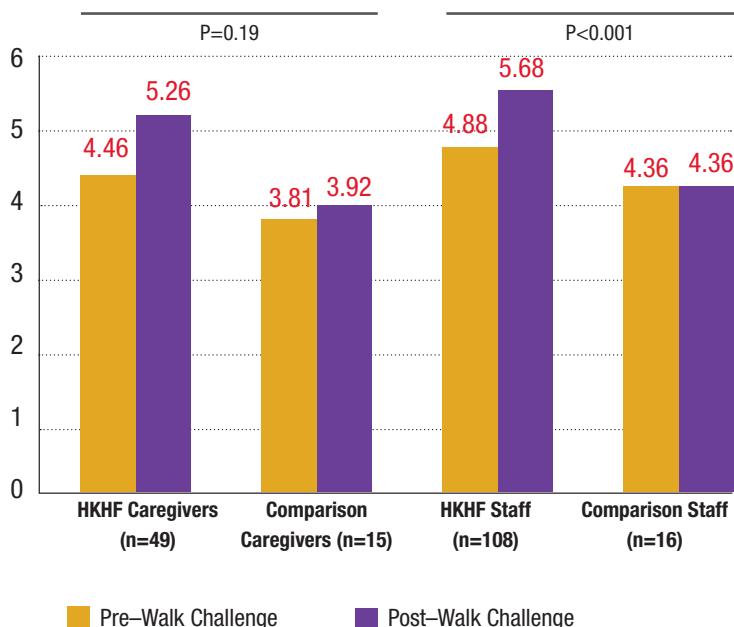
**Figure 5. Head Start Families with TV in Child's Bedroom Walk Challenge Caregiver Survey, Spring 2010 and 2011 (N=49)**



**Figure 6. Head Start Families with TV in Child's Bedroom Head Start Orientation Caregiver Survey, Fall 2011 (N=69)**



**Figure 4. Pre- and Post-Walk Challenge: Number of Days/Week Physically Active for ≥60 Mins/Day Over Last 7 Days**



## Community-Based Physical Activity Promotion for Young Children and Families

To provide opportunities for family physical activity, HKHF partners with BCYF to run the Saturday Open Gym program. The partnership supports the capacity of BCYF to provide family-active programming for families with young children. Saturday Open Gym is the cornerstone of HKHF's programmatic efforts, providing the only free, safe, accessible space for Boston families with children ages three to eight years old to be physically active together. Three core areas support HKHF's Saturday Open Gym program: (1) Saturday Open Gym student engagement, (2) Saturday Open Gym family engagement, (3) and Saturday Open Gym resource development and community outreach.

### 1. Saturday Open Gym Student Engagement

Saturday Open Gym is a weekly, 90-minute program run at a local community center staffed by Northeastern University's undergraduate and graduate students who serve as Student Activity Leaders. At three times during the year, students are recruited through a partnership with Northeastern University's Center of Community Service to create a sustainable staffing pipeline and to provide student learning and leadership opportunities across disciplines. In addition to staffing Saturday Open Gym as part of their service-learning coursework, students also staff Saturday Open Gym through the federal work-study program or as volunteers.

Each week, Student Activity Leaders lead a program for families attending Saturday Open Gym that includes:

- *Family Meet & Greet and Resources*
- *Open Family Play*
- *Mini-Clinics:* Short facilitated sessions in the gym that teach a specific set of skills relating to a sport or activity for both parents and children.

- **Large Group Game:** A structured game of moderate to vigorous physical activity that includes children and parents.
- **Family Closing Circle:** A group stretch and cool-down activity designed to encourage social interaction and promote communication about that week's Saturday Open Gym experience for children and families.

### Key Findings

#### Student Engagement Data, 2009–2011

- Since the start of Saturday Open Gym in summer of 2009, 82 students (36 undergraduate students and 46 graduate students) have worked with the Saturday Open Gym program.
- During the seven Saturday Open Gym cycles from summer 2009 to summer 2011, Northeastern University students have contributed more than 2,200 service-learning and volunteer hours.
- HKHF engages a diverse group of students from across multiple departments in several colleges at Northeastern, including Arts, Media, and Design; Business Administration; Health Sciences; Science; and Social Sciences and Humanities.

#### Saturday Open Gym Orientation Training

All student activity leaders are provided with a Saturday Open Gym orientation training prior to beginning their work with Saturday Open Gym. Most students reported that the Saturday Open Gym orientation training was "very good" or "excellent" across all areas (Table 9).

#### Student-Written Reflections

Student Activity Leaders are asked to complete written reflections for their professors in their service-learning courses about how they benefited from their service-learning experience with HKHF. Some excerpts from student reflections in 2011 include:

*"Although this service-learning experience required a lot of work, I enjoyed every minute of it and am thankful that I had the opportunity to work with such a great program, and truly feel that I have made a difference in the lives of others as well as my own life."*

*"The most important quality I have been able to develop and improve upon through [HKHF] is my level of self-confidence. Through this service-learning experience, I have learned to have more faith in my abilities and in learning to communicate and motivate people to participate in a program, I have become more comfortable with meeting new people and sharing what I know and have learned with them. At [HKHF], the caregivers were very interested in our lives outside of the program and loved that we were students giving back to the immediate community by sharing our knowledge and time with them."*

## 2. Saturday Open Gym Family Engagement

Since the start of Saturday Open Gym in summer 2009, HKHF has provided more than 60 Saturday Open Gyms across seven different cycles. Saturday Open Gym uses multiple approaches to engage family participants, including advertising in community newspapers, direct outreach at childcare programs, and weekly communication. Saturday Open Gym staff communicates with participating families each week throughout the program cycle via email, phone calls, and text messages, and keeps in touch between cycles through mailings. The gym itself is structured as a weekly drop-in opportunity and families are welcome at any time during a program cycle. This flexibility allows families to attend whenever it is convenient for them. To facilitate continued participation in Saturday Open Gym, incentives are given for attendance.

**Table 9. Saturday Open Gym Student Orientation Feedback Data, Summer 2009–Summer 2011 (N=73)**

The extent to which the Saturday Open Gym Orientation Training helped Student Activity Leaders to understand...	N	%
<b>1. Childhood obesity</b>		
Adequate	7	9.6
Very good	26	35.6
Excellent	40	54.8
<b>2. HKHF overall</b>		
Very good	10	13.7
Excellent	63	86.3
<b>3. Techniques to engage caregivers/children in physical activity</b>		
Somewhat	2	2.7
Adequate	6	8.2
Very good	24	32.9
Excellent	41	56.2
<b>4. Challenges facing Boston residents to engage in physical activity</b>		
Somewhat	3	4.1
Adequate	6	8.2
Very good	22	30.1
Excellent	42	57.5
<b>5. Their role as an HKHF volunteer</b>		
Adequate	2	2.7
Very good	10	13.7
Excellent	61	83.6
<b>6. Saturday Open Gym structure</b>		
Adequate	4	5.5
Very good	12	16.4
Excellent	57	78.1

### Key Findings

#### Family Outreach

- Over the course of the seven cycles of Saturday Open Gym between summer 2009 and summer 2011, 243 different families have attended the program. These 243 families include 275 caregivers and 430 children.
- An average of 55 different families attend Saturday Open Gym over the course of each cycle. See Figure 7 for attendance by cycle since the start of the program.
- Although mothers (61 percent) represent the majority of caregivers attending Saturday Open Gym, fathers (12 percent) and caregivers attending as part of a couple (19 percent) are also well represented (Figure 8).
- Participants reflect the demographics of Boston residents bearing a disproportionate burden of chronic disease, particularly obesity: 55 percent of participants identify themselves as African American/black and 31 percent of participants identify themselves as Hispanic/Latino.

## Family Retention

Boston families are looking for low-cost opportunities to be active with their young children, in safe, friendly, and age-appropriate settings. Saturday Open Gym is structured as a drop-in program with no ongoing commitment required from families. Nevertheless, families return in large numbers.

- On average, 19 families, or a total of 50 caregivers and children, attend Saturday Open Gym each week.
- Families tend to return to Saturday Open Gym across cycles; 30 percent of families have attended more than one cycle (Figure 9).
- Families tend to come to more than one Saturday Open Gym session during a cycle (eight to ten sessions per cycle); 30 percent of families have come to > 50 percent of all Open Gym sessions in a given cycle.

## 3. Saturday Open Gym Resource Development and Community Outreach

In addition to Saturday morning activities inside the gym, part of the Saturday Open Gym program involves conducting community outreach to inform families about the program and connecting caregivers with local health-related resources and services. A resource table is set up inside the gym each week to provide caregivers with information on resources across the following areas: public health, nutrition/food, fitness, and local events for families with young children. Resource partners are also invited to Saturday Open Gym to introduce families to organizations that provide services that may be of interest to them.

### Key Findings

To promote Saturday Open Gym to families with young children throughout Boston, HKHF advertised the program at Head Start partner sites and Boston Public Library branches, as well as through the HKHF parent list-serv and HKHF partner organizations. HKHF staff and student volunteers also attended the annual citywide Head Start Parade on May 25, 2011, to lead activities and distribute flyers to parents.

Figure 7. Total Number of Families Attending Saturday Open Gym Per Cycle

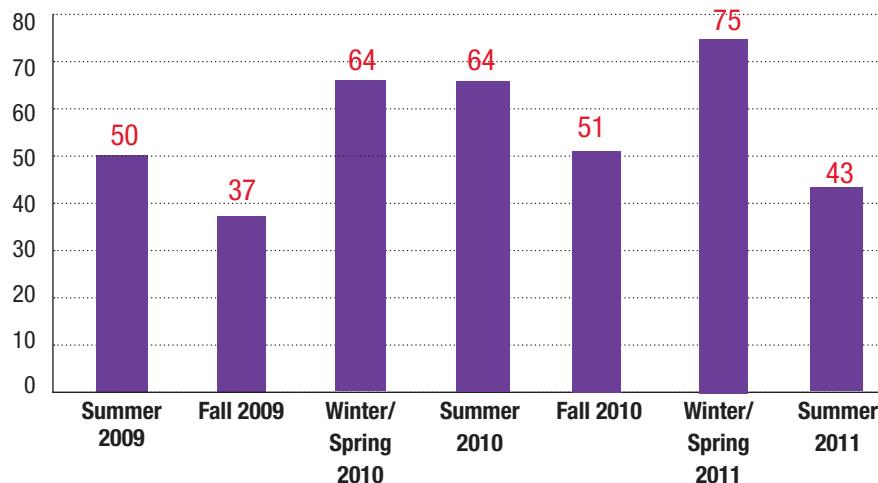


Figure 8. Saturday Open Gym Caregiver Demographics

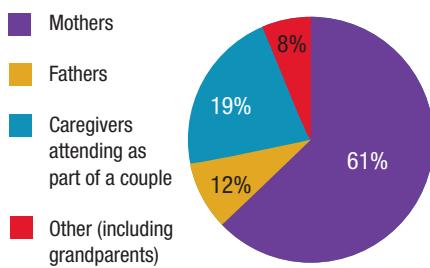
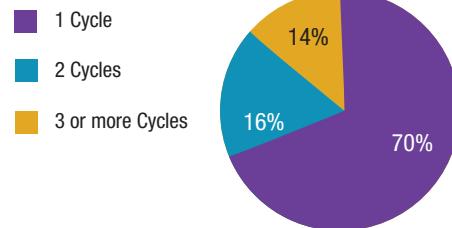


Figure 9. Number of Saturday Open Gym Cycles Attended by Participating Families



HKHF hosted a variety of resource partners at Saturday Open Gym throughout Year Three. In addition, HKHF partnered with the Boston Public Health Commission's Office of Oral Health to host a Family Wellness Fair at Saturday Open Gym on April 2, 2011. The fair included free dental health screenings, child and bike safety information, free bike helmets, nutrition education information, support for finding health and dental insurance, as well as a variety of prizes and giveaways. Forty-six families attended, including 139 caregivers and children.

### Year Three Saturday Open Gym Resource Partners

- Boston Public Health Commission
- Boston University Henry M. Goldman School of Dental Medicine
- Child Development and Education, Inc.
- FANTastic Kids Program (Boston Medical Center)
- Jumpstart
- Mayor's Health Line
- The Food Project
- Zumba/Yogalates Instructor

## Collaboration Beyond Program Implementation

### 1. Healthy Kids, Healthy Futures Teams

Through its inter-institutional collaboration, the HKHF initiative supports two working teams to provide programming support and evaluation. Team members include representatives from Action for Boston Community Development (ABCD) Head Start, the Boston Public Health Commission (BPHC), Northeastern University, Children's Hospital Boston, and the Boston Centers for Youth & Families (BCYF). Below is a brief list of selected Year Three accomplishments by team.

#### HKHF Year Three Planning Team

- Developed HKHF Year Three activity plan
- Provided ongoing feedback and support for implementation of all Year Three activities

#### HKHF Year Three Evaluation Team

- Expanded HKHF logic model to include Year Three activities
- Developed HKHF Year Three evaluation plan
- Developed various evaluation tools and measures
- Obtained IRB approval from Northeastern University
- Collected and analyzed program evaluation data
- Wrote the Year Three evaluation report

### 2. Collaborations

In Year Three, HKHF engaged in a successful collaboration with The Food Project to develop and pilot the Farm to School to Family program. HKHF and The Food Project conceived of the program together in fall 2010, and worked closely to assess interest among caregivers and staff at Head Start partner sites and to draft a joint project scope. Implementation of the Farm to School to Family program in 2011 also required ongoing communication and collaboration between staff from HKHF and The Food Project in order to coordinate the logistics of farm share/veggie box payment and delivery. HKHF and The Food Project will continue to work together to evaluate the program and make plans for 2012.

## Program Evaluation and Dissemination

Given HKHF's unique position as one of only a few obesity prevention programs for preschoolers, the HKHF team has been actively working to share its model and accomplishments over the last three years. Since HKHF began in 2009, HKHF program evaluation activities have engaged institutional partners, community partners, and Northeastern faculty and students, and have resulted in six national presentations at professional conferences, as well as three manuscripts currently under review for publication in peer-reviewed journals. Below is a list of presentations and papers to date.

### Presentations at Professional Conferences

- Nethersole S, Healey C, Agrawal T, Dickerson D, Bhaumik U. Healthy Kids, Healthy Futures: An Innovative, Community-Based Initiative to Prevent Childhood Obesity. *National Initiative for Children's Healthcare Quality Annual Meeting 2010*, Atlanta GA. Presented May 2010.
- Hoffman J, Agrawal T, Ahl M, Bhaumik U, Carter S, Cunningham K, Healey C, Nethersole S, Castaneda-Sceppa C. Healthy Kids Healthy Futures: A Multilevel Approach to Prevent Childhood Obesity. *American Psychological Association Annual Meeting 2010*, San Diego, CA. Presented August 12–15, 2010.
- Thomas J, Hoffman J, DuBois M, Agrawal T, Healy C, Nethersole S, Castaneda Sceppa, C. Healthy Kids, Healthy Futures Saturday Open Gym Physical Activity Promotion: Pilot Study. *American Public Health Association Annual Meeting 2010*, Denver, CO. Presented November 6–10, 2010.
- DuBois M, Bell D, Hoffman J, Agrawal T, Larracuente M, Nethersole S, Castaneda-Sceppa C. Recruiting and Retaining Families in a Physical Activity Promotion Program. *National Association of School Psychologists Annual Meeting 2011*, San Francisco, CA. Presented February 22–26, 2011.
- Castaneda-Sceppa C, Bhaumik U, Agrawal T, Carter S, Ahl M, Healey C, Nethersole S, Hoffman J. Using a Walk Challenge to Promote Physical Activity Among Preschool Staff and Parents/Caregivers. *Medicine and Science in Sports and Exercise 2011;43:(5 Suppl):S634*. *American College of Sports Medicine Annual Meeting 2011*, Denver, CO. Presented on June 4, 2011.
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- Agrawal T, Hoffman J, Ahl M, Bhaumik U, Healey C, Carter S, Joyce D, Dickerson D, Nethersole S, Castaneda-Sceppa C. Collaborating for impact: Partnership and programming model of a multi-level early childhood obesity prevention initiative.
- Hoffman J, Agrawal T, Thompson D, Grinder A, Carter S, Healey C, Bhaumik U, Castaneda-Sceppa C. Increasing culturally diverse foods in Head Start meals using a collaborative approach: Lessons learned for school food service modifications.
- Thomas J, Hoffman J, DuBois M, Agrawal T, Healey C, Nethersole S, Castaneda-Sceppa C. Measuring participant activity levels in a physical activity promotion program for preschool children and their caregivers.



## Accomplishments Over Three Years and Summary Conclusions

To our knowledge, Healthy Kids, Healthy Futures is the only obesity-prevention initiative targeting preschool children in the City of Boston. It represents a viable program partnership with unique and clearly defined partner assets and contributions, demonstrated by the development of a model that supports environmental changes in early childcare settings to promote healthy eating and physical activity, provides professional development opportunities for teachers, builds parent/caregiver skills, and engages university students and Boston families in community-based physical activity promotion and participation. HKHF's partnership with Boston Centers for Youth & Families and ABCD Head Start uses existing infrastructures to reach families with young children directly and coordinates institutional resources across partners to provide opportunities for healthy eating and physical activity where young children and their families live, learn, and play.

- ✓ HKHF has worked with community partners at ABCD Head Start to implement various activities for parents/caregivers and staff over the past three years.
- ✓ HKHF has worked with community partners at BCYF to establish an ongoing, free Saturday Open Gym program to provide access to and promotion of physical activity among young children and their families.
- ✓ HKHF has worked with community partners at The Food Project to establish and evaluate the Farm to School to Family program that positively impacts the food environment for Head Start families and staff by increasing the accessibility and affordability of high-quality, local produce.



## Nutrition and Physical Activity Promotion in Home and Childcare

- Since 2009, Healthy Kids, Healthy Futures has reached more than 300 Head Start staff and parents/caregivers of preschool children through training, education, and capacity building efforts.
- Since 2009, more than 200 Head Start staff and parents/caregivers have participated in the Walk Challenge program, with participation increasing every year. In Years Two and Three, 157 Head Start staff and parents/caregivers joined the Walk Challenge and completed a pre- and post-Walk Challenge survey. Following the Walk Challenge, staff and parents/caregivers in the HKHF group reported being more physically active, while staff and parents/caregivers in the Comparison group who did not participate in the Walk Challenge showed virtually no change in their level of physical activity.
- In 2011, 87 Head Start caregivers and staff participated in the Farm to School to Family program. Seventy-one percent of surveyed caregivers reported that the program made a difference in their family's eating behaviors and 86 percent reporting a willingness to participate in the program again next year.

## Community-Based Physical Activity Promotion for Young Children and Families

- Since 2009, more than 60 Saturday Open Gyms have been held, reaching more than 240 families with young children, including 275 parents/caregivers and 430 children.
- More than 80 Northeastern University undergraduate and graduate students have facilitated the Saturday Open Gym program since its inception in 2009, contributing over 2,200 service-learning and volunteer hours. The majority participated as part of a service-learning course, which means they gained new knowledge and skills while simultaneously helping the local community and developing their leadership and civic engagement abilities.



## Future Directions

1. In Year Three, HKHF engaged in a strategic planning process. Future directions that emerged from the strategic plan included:
  - (a) building awareness in the local community among agencies and individuals that can be allies and donors for HKHF;
  - (b) diversifying HKHF's funding base beyond institutional funding partners to ensure sustainability;
  - (c) continuing to provide direct services while transitioning to a technical assistance role that supports activities implementation through community partners;
  - (d) strengthening the evaluation aspects of HKHF to measure the impact of intervention activities.
2. The Farm to School to Family (F2S2F) pilot program reached a large number of families, and was viewed positively by participants; some evidence suggests the program helped families to eat more fruits and vegetables. Evaluation data highlighted strengths and challenges associated with implementing the F2S2F model as well as some areas for improvement. HKHF will continue to partner with The Food Project to discuss future collaborations for 2012. Additionally, HKHF will pursue research opportunities to study more closely the effects of the F2S2F model on families' fruit and vegetable consumption behaviors.
3. The Saturday Open Gym program is a feasible model that engages large numbers of families with young children in physical activity one day per week. Beginning in fall of 2011, the Walk Challenge will be incorporated into Saturday Open Gym so that families are encouraged and supported to be physically active every day. HKHF will also pursue ways to strengthen the evaluation component of Saturday Open Gym to examine the effects of the program on participants' physical activity levels.



## Leadership Team and Staffing

### Leadership Team

#### **Primary Institutional Partner Contacts**

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## Leadership Team and Staffing (continued)

### HKHF Staff

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#### Project Staff

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### Project Consultants

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