
United Way of New York City
and Administration for Children's
Services: Healthy Eating for a
Healthy Start Demonstration
Project

2010-2011 Year One Evaluation Report
September, 2011

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United Way of New York City and Administration for Children's Services:
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With acknowledgements to Robert Lewis and Jerry Robock for their contributions and assistance in preparing this report

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Executive Summary

Evaluation of United Way of New York City and Administration for Children's Services: Healthy Eating for a Healthy Start Demonstration Project

In response to studies finding that almost 40% of children in NYC Head Start programs are obese or overweight, United Way of New York City (UWNYC), working in partnership with New York City Administration for Children's Services (ACS), designed the Healthy Eating for a Healthy Start Demonstration Project (HEHS). The aim was to increase access to healthy foods, improve nutrition health literacy for low-income families and Head Start staff to help reduce the prevalence of diet-related diseases and increase the number of youth and adults who are healthy. HEHS also aims to identify best practices, including sustainability, to impact nutrition policies in Head Start and Early Education Centers to prevent the incidence of obesity in young children.

Towards that end, UWNYC and ACS selected Children's Aid Society (CAS) and Children's Museum of Manhattan (CMOM) to design and implement a team approach series of professional development workshops (HEHS trainings) for all those who influence and impact the health and wellness of children in Head Start Centers, this includes kitchen staff, administrators, family/social workers, classroom staff, parents/guardians, and support staff. A total of eight (8) Head Start Centers in Brooklyn and Manhattan participated in the demonstration project.

Purpose of the Evaluation

An independent, process and impact evaluation of HEHS began in August 2010 to examine the extent to which the project had made progress in its goals and objectives, and to determine the nature, worth, and utility of HEHS implementation activities (e.g., training workshops, materials), reactions to training and resources by Head Start staff and families, emerging outcomes of HEHS (changes in nutritional knowledge, attitudes, beliefs and practices, changes in menus, and progress in creating and implementing wellness policies in the eight Head Start Centers), obstacles, recommendations, and planning next steps for the sustainability of the program.

Methodology and Data Analysis

To conduct the evaluation, data were collected through multiple sources: teacher surveys, site

visits that included classroom observations, focus groups/interviews with all stakeholders (kitchen staff, directors, family/social workers, and parents/guardians), Efforts To Outcomes (ETO) databases populated with CMOM and CAS implementation (e.g., attendance) and outcomes data (e.g., recipe use, pre-post nutrition literacy knowledge), and pre-post menus from all eight (8) Centers were provided and analyzed using the HEHS Menu Rubric jointly designed by CAS and Learning Analytics Group to assess pre-post nutritional quality of menus. The HEHS Classroom Observation Form and Environmental Scan was designed for HEHS to collect data on nutrition and physical activity and resources in each Center and classroom. Evaluator observations of CMOM and CAS trainings were also conducted throughout the demonstration year.

In June and July 2011, following HEHS trainings, site visits were conducted at each of the eight (8) demonstration Centers. A total of twenty-two (22) 3-hour classroom observations and thirty-two (32) stakeholder focus group/interviews lasting between 35- 45 minutes were conducted and analyzed. Prior to the site visit, 147 retrospective teacher surveys were mailed to be distributed to classroom staff and 119 surveys were returned and entered into a database for analysis, resulting in a return rate of 82%. Quantitative survey, observation, ETO, and addendum data were analyzed in the aggregate (combined) and disaggregate (by Center, by position) to generate descriptive statistics (averages, frequencies, percentages, and ranges of response) related to implementation activities and outcomes, as well as inferentially to determine possible significance of differences in survey responses (e.g., differences in classroom staff reactions to HEHS).

Focus group, interview, and observation data were analyzed using qualitative techniques of content analysis to determine emerging themes, patterns and outcomes. Ethnographic classroom dimensions (climate, mealtimes, discourse, and interactions) were reported in case form with frequencies reported as applicable.

FINDINGS

I. IMPLEMENTATION

- Close to 400 individual participants representing a cohort of kitchen staff, classroom staff, family/social workers, administrators, support staff – custodians, office staff, and parents who influence and impact children's nutrition and wellness from the 8 demonstration Centers attended a total of 36 HEHS trainings (4 provided by CAS and 32 provided by CMOM) from Fall 2010 through Spring 2011. Total attendance exceeded 900 for all trainings combined
- 100% of respondents reported high levels of satisfaction and value with the team approach used whereby Head Start kitchen, classroom, social work and administrative staff and families all received multiple trainings in nutrition literacy.

We need this program... to help us learn to choose and eat healthier and prepare foods healthier for our families... in our community ...too many children are obese and have diabetes; My daughter will be a mother and I want her to know how to feed her family the healthiest ways so we need access to this privileged information – Parent

II. REACTIONS TO CMOM and CAS TRAINING

- **Classroom Staff:** One hundred percent (100%) of classroom staff who responded to the survey agreed that the training sessions and instructors were well organized, enjoyable, made good use of the time allotted, were knowledgeable, and enthusiastic and presented nutrition and health concepts in a way they could understand.
 - More than 90% indicated: the teaching methods used were effective in helping them learn, instructors encouraged questions and discussion, they would attend other sessions by these instructors, the materials provided have been useful for their teaching, the instructors improved their ability to teach nutrition and health topics, materials were useful, and the knowledge and skills they learned have been useful for their own health

- Close to or 100% of **kitchen staff, family/social workers, and parents** (N= 49) reported: Instructors were enthusiastic, knowledgeable about nutrition, improved their ability to inform other people about nutrition and health, were effective in helping them learn about nutrition and health, understood the nutrition and health concepts that were presented, and thereby helped expand their knowledge of nutrition and health. They reported that instructors encouraged questions and discussion, were well organized, and materials that were provided have been useful for their work.

III. EMERGING CHANGES AND OUTCOMES SINCE PARTICIPATING IN HEHS

80%- 100% of respondents – across all groups and across all demonstration centers reported a range of nutrition and health benefits and practices since participating in UWNYP/ACS HEHS including:

- Increased nutrition literacy among staff and children; more informed decision making about healthy eating in staff, children, and families; greater support for the promotion of a team approach to creating healthier environments and increased access to healthy foods by children and staff in all Centers.
- Less than a quarter of those respondents (18%- 24%) voiced agreement or strong agreement that HEHS trainings: adequately addressed cultural beliefs that can interfere with healthy eating; increased parent knowledge about the relationship between healthy eating and children doing well academically or parent awareness and interest in the healthier meals and snacks being served.

Changes in Access to Healthy Foods

Findings based on pre-post menu analysis support reports from staff and parents across the 8 demonstration centers that kitchen staff put their increased knowledge of nutrition into practice: On average, centers showed gains or strength in all 6 Menu Rubric criteria of nutritional quality, albeit with room for continued growth. Improvements included:

- New and healthier menus that incorporated recipes prepared at CAS trainings, including increased use of plant based proteins.
- Increased preparation of foods in tasty, healthy ways (roasting vegetables, experimenting with new ways to prepare

healthy foods).

- Changing vendors as needed and increasing use and purchase of healthy foods (fresh produce, putting in food orders every two weeks rather than every four weeks to increase the purchase and quality of fresh produce).
- Lowering or in some cases eliminating the use of canned foods that can be purchased fresh or frozen (especially canned fruits). Using products that are canned (or frozen in its own juice rather than in more sugared syrups).
- Preparing more foods from scratch rather than using pre-prepared foods (homemade pancakes, “chicken fingers”, “fish sticks”, etc., over pre-prepared/frozen).
- Increased use of whole grains rather than processed grains (brown rice rather than white rice). Several centers reported that they are planning to use whole grains exclusively by fall, 2011.
- Conducting more food demonstrations in classrooms and more workshops for parents
- Working to provide healthier foods for parent meeting and family center events.

Changes in Nutrition Literacy/ Practices by Classroom Staff

90% or more of classroom staff reported “great” to “moderate” improvement in their knowledge and ability to teach children about a variety of nutrition, health, and wellness topics as a result of their participation in HEHS. The top five activities implemented “very often” or “often” by a majority of classroom staff since HEHS included:

- Discussing healthy eating with children in my class; creating time and activities for children to be physically active for at least 1 hour each day; Using gross motor equipment in the classroom or playground, reading aloud to children from books with a healthy eating theme, and have children sing healthy eating songs.

90% of classroom staff agreed with statements reflecting attitudes, environments, practices, curriculum, and interactions that support wellness and promote healthy eating in children including:

- The way I introduce new foods can influence my students’ willingness to try new foods; Children need daily physical or gross motor activity in addition to movement and dance; What children eat as youngsters can impact their long term health; Teaching children

about nutrition and healthy living should be required in all Pre-K classrooms; Programs like HEHS help prepare early childhood staff to teach about nutrition and health; Kitchen staff in our center are making healthier meals and snacks since HEHS began; My students’ nutrition behaviors and knowledge have improved since HEHS

Conversations have shifted, norms are shifting in what we ‘allow’ each other to bring in to eat ...in what we serve at parent meetings... in what we talk about with parents and co-workers...in what we buy and serve our families...we support and try to encourage each other ...healthy eating has become our water cooler talk

Reported Benefits to Children

According to teacher survey respondents, the vast majority of 3, 4, and 5 year old children in their classrooms have benefitted from HEHS by demonstrating progress in improved knowledge, attitudes, and behaviors concerning healthy eating and exercise (Figure 3) including:

- 99% saw an increase in children’s knowledge of nutrition and healthy eating
- 85% saw greater interest in learning about nutrition and healthy eating
- 89% showed engaged and positive response to the nutritional lessons I am teaching
- 80- 99% of children have shown greater motivation to eat healthy foods; become less picky and shown greater willingness to try new foods; increased their exercising; talked more about nutrition and health topics, and shared their knowledge about nutrition with their family.
- 56% of classroom staff reported increased physical activity for children in their classrooms (41% increased the amount of time each day children get physical/movement activity by less than 30 minutes each day; 39% increased the amount of time by 30-45 minutes, and 20% increased the amount of time by 1 hour or more each day).

Observations of 22 classrooms support survey and focus group findings that healthy eating topics have become integrated into everyday classroom discourse in all 8 centers through a variety of instructional activities, albeit, to varying extents by classroom including ;

- Whole class read-alouds, hands-on projects, poems, songs/movement/dance, carpet-time discussion, small group interest area/choice time play, teachable moment conversations,

mealtimes, physical/gross motor activities, and/or shared reading with a peer or adult.

- Student engagement during observed healthy eating instructional activities averaged 4.5, or most to almost all of the time. A majority of students demonstrated familiarity with the topic of healthy eating.

Reported Benefits to Classroom Staff

Classroom staff increased the frequency (much more, more, and/or slightly more) of a variety of healthy eating and wellness practices in their personal lives compared to before they participated in HEHS.

- Over or close to 90% of classroom staff reported much or more frequently: trying a variety of healthy foods; drinking more water and less soda/sugary drinks; learning and reading more about nutrition and healthy living; eating healthy foods; checking food labels on cans and packages; and exercising more.
- For about 80% of classroom staff, the following nutrition practices improved but not as often as those above: avoiding fast food restaurants, correct portion size, cooking at home more often, shopping at green grocery or farmers' markets.

Reported Benefits by Kitchen Staff, Family/Social Workers, Administrators

A range of changes in personal practices were reported by kitchen staff, family workers, and administrators with 80% reporting they were doing the following much more or more frequently since HEHS:

- Checking food labels on cans and packages; Drinking more water and less soda and sugary drinks; Trying a variety of healthy foods; Talking about healthy eating and exercise; Learning and reading about nutrition and healthy living
- Practices that remain more challenging to change include: using correct portion size, avoiding fast food restaurants, and exercising,

Reported Benefits by Families/Parents

Since HEHS interviewed parents (N= 21) reported positive changes in their nutrition practices:

- 90- 100% of parents reported they and their families are drinking more water and less soda and sugary drinks, checking food labels on cans and packages; avoiding fast food restaurants, learning and reading more about

nutrition and healthy eating, and trying a variety of healthy foods

- More than three-quarters of parents reported talking about healthy eating and exercise and cooking at home more. Just under half reported shopping at green grocery or farmers' markets more (though often reported as an obstacle of access and affordability), and exercising.

Wellness Policies

Based on focus groups/interviews, more assistance is needed to develop and implement wellness policies across centers. Centers connected to larger organizations prefer to develop organizational wellness policies in their Head Start Centers that align across their organization.

- 65% of classroom staff surveyed see some role for themselves in helping to develop and carry out wellness policies in their center, while 35% either do not see a role, are uncertain, or did not respond.

Obstacles and Challenges to Implementing HEHS

Based on teacher survey results, respondents generally agreed that HEHS has been supported and promoted within the demonstration centers, but to differing degrees by different stakeholders:

- Overall, parents were perceived to be least supportive of HEHS by all staff and lack of parent support reported to be the biggest obstacle and challenge in fully implementing HEHS.
- Classroom staff also noted as obstacles: work overload; insufficient money/resources, lack of time to conduct necessary work, inadequate materials, equipment and/or facilities, insufficient follow-up technical assistance, lack of site support in development of HEHS instructional activities. Thirty-one (31%) of classroom staff respondents reported there were no obstacles to implementing HEHS.
- While there was agreement that more needs to be done to involve more families, respondents noted variables affecting families such as lack of access and affordable fresh produce and healthy foods; perceived lack of cooking interest and skill; translating traditional recipes into healthier recipes, addressing cultural views of food, and barriers to exercising.
- Staff also reported many positive changes in parents: *We have noticed an increase in the*

number of parents who are using some of the nutrition information that was available in our center. It had been there before HEHS but now more parents seem more interested. They are asking questions and noticing the new menus too.

V. CONCLUSIONS AND RECOMMENDATIONS

In its first year as a demonstration project, UWNYC/ACS HEHS Demonstration Project has made great and measureable progress towards achieving its objectives; With attendance at multiple trainings exceeding 60%, robust progress has been made in creating a sizeable cohort of trained Head Start staff, knowledgeable and active in promoting and modeling healthy eating and wellness practices. The application of learning has led to an increase in access, provision, and preparation of nutritious meals in all eight demonstration Centers. Kitchen staff, classroom staff, family/social workers, parents and administrators from the eight demonstration centers were enthusiastic in their endorsement of HEHS, and more specifically in the team approach and engaging training methods through which HEHS was implemented. There was widespread approval of the CMOM and CAS trainings and widespread agreement on the effectiveness of trainings in improving knowledge, and promoting attitudes, beliefs, and practices that positively influence children's and their own health and wellbeing.

From analysis of thirty-two focus groups/interviews across eight demonstration Centers, the trainings were relevant and effective in engaging participants and safe enough to support risk-taking that allowed them to gradually question assumptions, rethink behaviors, and broaden understandings about healthy eating. Trainings promoted active nutrition-learning, demonstrated in the preparation of new recipes

or implementation of new or expanded formal and informal healthy eating classroom instructional activities and conversations. Staff increasingly recognized the significance of their role in influencing children's health and wellbeing. Centers, even those that had begun to institute healthy eating practices prior to HEHS, described a growing shift in norms from resistance to a collaborative team approach, to instilling and modeling healthy eating norms. HEHS was characterized as *life changing*. Staff and parents were proud of the changes they had made even while they reported they need to still improve upon unhealthy eating and exercise habits and had much more to do in creating and sustaining healthy environments. Across the board, respondents expressed the need for HEHS to continue and to expand.

The first year of implementation was not without its obstacles and challenges. One major challenge was getting a wide spectrum of parents involved in HEHS activities and trainings. Strategies to engage parents and ensure access and affordability to healthy foods and preparation should be a focus of year two. To further strengthen and sustain an already valuable program, recommendations also included; additional, repeated, or targeted workshops and technical assistance for staff and families, projects and strategies to enhance and sustain professional relationships within and across Centers, expansion of HEHS to other Centers, developing community partnerships and wellness policies, increasing access to healthy foods for community members, creating nutrition certification for kitchen staff, and ensuring adequate materials and resources to implement and sustain HEHS.

Prepared for: United Way New York City and Administration for Children's Services ; September 2011 *Stephanie Wexler-Robock, PhD., NCC: 010*

INTRODUCTION

United Way of New York City's Healthy Eating for a Healthy Start Demonstration Project: 2010-2011 Evaluation

In response to studies finding that almost 40% of children in NYC Head Start programs are obese or overweight, United Way of New York City (UWNYC) working in partnership with New York City Administration for Children's Services (ACS) designed the Healthy Eating for a Healthy Start Demonstration Project. The aim of *Healthy Eating for a Healthy Start* is to increase access to healthy foods and improve nutrition health literacy for low-income families, their children, and Head Start staff to help reduce the prevalence of diet-related diseases and increase the number of youth and adults who are healthy. The demonstration project also aims to identify best practices, including sustainability, to impact nutrition policies in Head Start and Early Education Centers to prevent the incidence of obesity in young children. A total of eight (8) Head Start Centers in Brooklyn and Manhattan were invited and agreed to participate in the demonstration project. Centers were selected in part due to reported high levels of obesity in the community. Three of the demonstration Head Start centers were located in Manhattan and five centers were located in Brooklyn.

PURPOSE OF THE EVALUATION

A one-year, independent, process and impact evaluation of United Way of New York City and Administration for Children's Services Healthy Eating for a Healthy Start Demonstration Project began in August, 2010. The overall purpose of the evaluation was to determine the extent to which the project has made progress in its goals and objectives, along with examining the implementation of HEHS to determine what works, what doesn't work, and why.

Towards that end a combined formative and summative evaluation of HEHS was conducted to determine the nature, extent, worth, and utility of Healthy Eating for a Healthy Start implementation activities (training, materials, and technical assistance), reactions to training and resources by Head Start staff and families, emerging outcomes of HEHS (e.g., changes in nutritional knowledge, attitudes, beliefs and practices, application of training, progress in creating and implementing wellness policies in the eight Head Start Centers), obstacles, recommendations, and planning next steps for the sustainability of the program.

METHODOLOGY

A mixed method approach was employed using qualitative and quantitative methodology to assess the extent, nature, satisfaction with program implementation, outcomes and emerging achievements of the demonstration project, along with lessons learned from the first year. To conduct the evaluation data were collected through multiple sources to provide triangulation of data and greater assurance of accuracy.¹ Data sources included:

I. Classroom Staff (Teacher) Participant Survey. The classroom staff survey was developed as a retrospective post instrument to gauge classroom staff (head teacher, assistant teachers, teaching assistants) perceived support for HEHS within their centers, reactions and perceived utility of training, perceived changes in their own and their students' knowledge, attitudes, and practices regarding nutritious eating and wellness, gross motor/movement activities, perceived obstacles to implementation, and recommendations for sustainability.

Based on the number of surveys requested by each center, a total of one hundred forty-seven (147) classroom staff surveys were mailed to the 8 Head Start Centers prior to the on-site visits along with instructions for the distribution and collection of the surveys. Surveys were collected on the day of the on-site visit. One hundred nineteen (119) classroom staff surveys were returned and entered into a database for analysis, resulting in an 82% return rate.

II. Site Visits. Full day site visits were conducted at each of the 8 participating centers following the final CMOM training. (In two cases, site visits were conducted prior to the final training based on center scheduling. Follow-up interviews regarding development of community partnerships were planned and conducted by telephone with directors at those two centers following their final training.) A team of three conducted five of the 8 site visits, with two of those site visitors also conducting the other 3 site visits. Depending on the center's schedule, site visits were conducted within the hours of 8:30 a.m. - 4:15 p.m., with some beginning or ending earlier or later.

- **Each site visit included:** 1) parent focus group, 2) kitchen staff focus group/interview, 3) director (s) interview, and 4) 3-hour classroom observation. (Two or three classrooms were observed for 3 hours each in the 8 centers for a total of 22 3-hour classroom observations.)

¹ Data collection instruments were reviewed by UWNYP and the Administration for Children's Services, with feedback incorporated into the appropriate instrument. The Classroom Observation and Environmental Scan Form was reviewed by UWNYP, the Administration for Children's Services, and the training providers (Children's Aid Society and Children's Museum of Manhattan) with feedback incorporated.

Focus Groups and Interviews

Focus Groups - Protocols were developed for each focus group/interview in collaboration with UWNYS and the Administration for Children's Services. The purpose of each focus group/interview was to explore how well the project was implemented (level of participation, awareness, accessibility, use, and dissemination), reactions to activities (utility, satisfaction, and knowledge gained, and value), personal and professional changes in knowledge and attitudes/beliefs, as well as changes in actions since participating, exploring challenges and barriers/ obstacles, strategies for overcoming these challenges, and recommendations for project improvement from the perspective of participants.

- **Addendum Questions.** Two addendum questions, taken directly from the classroom staff survey (rating of trainings and personal changes since participating in HEHS), were read aloud to family workers, kitchen staff, and parents during focus groups/interviews, and their responses to each item tallied in order to compare ratings of specific criteria of satisfaction with trainings and changes in reported personal practices as a result of participation in HEHS across groups of participants, and by demonstration center.

1. Parent/Guardian Focus Group. The purpose of the parent focus group was to explore parents' awareness of and experiences with HEHS, gauge parent involvement and how well the project was implemented (level of participation, awareness, accessibility, use, and dissemination), reactions to activities (utility, satisfaction, opportunities and knowledge gained, and value), reported changes in healthy food purchases, modeling healthy eating; and extent of awareness and utilization of community resources for healthy food, advocating for healthy eating and nutrition, perceived changes in their children's attitudes, knowledge, and practices related to nutritious eating and wellness, obstacles, and recommendations for project improvement and sustainability from the perspective of parents.

2. Director(s) Interview. The Director's interview was designed to probe Director's perceptions of HEHS goals, support for HEHS, reactions to activities (utility, satisfaction, opportunities gained, and value); changes in knowledge, attitudes/beliefs, and practices; extent of application of Healthy Eating for a Healthy Start training in menus, food orders, center and classroom activities ; creation and promotion of healthy eating/wellness policies; perceived barriers and challenges; and recommendations for project improvement and sustainability.

3. Family Worker/ Social Service Worker Focus Group/Interview. The Family Worker/ Social Service Worker Focus Group/Interview probed perceptions of HEHS and trainings; knowledge gained and the nature and extent to which it has been used with parents; changes in personal attitudes/beliefs and practices related to healthy eating and wellness, perceived changes in their centers' menus, activity related to wellness policies, the extent to which family/social service workers reported assisting families in identifying and/or accessing community resources for healthy foods; perceived barriers or challenges, and recommendations for project improvement and sustainability.

4. Kitchen Staff Focus Group/Interview. The kitchen focus group/interview examined perceptions and outcomes of training including the extent to which kitchen staff reported and demonstrated: knowledge gained; changes in attitudes/beliefs; changes in menu planning; changes in purchases of healthy foods; changes in methods of food preparation to reflect healthy eating and nutrition practices, changes in personal practices related to healthy eating and wellness, perceived barriers or challenges, and recommendations for project improvement and sustainability.

UWNYC/ACS HEHS Center Environmental Scan and Classroom Observation Form. (HEHS ESCOF) The HEHS ESCOF included two sections: 1) Environmental Scan and, 2) Classroom Observation. Each section was further subdivided as described below. It is important to note that the site visits were a snapshot of the classroom and center on the day of the site visit only.²

1. Environmental Scan. The environmental scan section of the HEHS ESCOF included items related to the nature and occurrence of environmental print in the classrooms and the Head Start centers as a whole (i.e., hallways, common areas) to determine the extent to which healthy eating and wellness information was reflected in classroom and center displays, posters, handouts, etc., at the time of the site visit. Also noted were current announcements, brochures, flyers, or postings of information on healthy eating and wellness related events and activities for families. The Environmental Scan provided a descriptive picture of each of the demonstration centers on the day of observation.

2. Classroom Observations. Classroom observations were conducted in each of the demonstration centers in order to assess occurrence and nature of teachers modeling healthy eating, available resources, the extent to which healthy eating and nutrition topics and information were discussed, posted, and/or incorporated into classroom activities (lessons, conversations, discussions, book readings, curriculum themes, neighborhood walks, dramatic play, etc.) and mealtimes (breakfast, lunch, and/or snack). As best as possible, though within limits and applicability, the accuracy of nutritional information disseminated, student engagement related to nutrition topics, etc., was also assessed. Data concerning activities, tone, and conversation surrounding observed mealtimes, along with children's and teachers' reaction to food served were also collected. The nature and amount of time spent on physical activity (i.e., gross and dance/movement) on the day of the site visit were also documented using the classroom observation form. The observation form was developed in

² Environmental scan and classroom lesson observation findings need to be interpreted with caution as environmental print, books, and other materials are rotated in classrooms and centers, and nutrition related lessons had not necessarily been planned for the day of the site visit, as the class may have studying a different theme. In some centers it was reported that Healthy Eating – related posters had been displayed earlier in the year, but had been taken down based on new classroom themes. Books in the classrooms are also rotated so the number of books identified by site visitors as pertaining to nutrition or wellness also needs to be viewed from that context. Posters or announcements for healthy eating and wellness events are date sensitive and more may have been posted at one time than was found on the day of the site visit. The same caution needs to be taken in drawing conclusion related to time spent in physical activity based one site visit.

collaboration with providers, UWNYP, and other key stakeholders, and was tailored to the training provided and the goals of the project. Observations were conducted in the Spring only and provide a descriptive picture of classrooms on the morning and early afternoon on the day of the site visit.

Document and ETO Review and ongoing communication with key project staff pertaining to proposed and implemented activities. In-person and telephone attendance at HEHS meetings, attendance at one (1) Children's Aid Society, and four (4) Children's Museum of Manhattan trainings. ETO database was reviewed and data were extracted from the ETO database maintained by UWNYP and populated by data entered by CAS and CMOM (training attendance, demographics, nutrition knowledge, training related activities).

- **Pre-post changes in Center menus.** Appropriate documents were reviewed to ascertain the extent of changes in menu planning and food purchases. Using the HEHS Menu Rubric (designed by Learning Analytics Group and Children's Aid Society) based on nutrition criteria determined by CAS and grounded in nutrition research, a review of menus submitted by each of the 8 participating centers prior to and following Children's Aid Society kitchen staff trainings was also conducted to determine nature and extent of changes in menu planning by each of the 8 demonstration centers.

DATA ANALYSIS

A database was designed for the classroom staff survey. Classroom staff survey data were entered into the survey database and then analyzed to generate descriptive statistics (measures of central tendency, frequency distributions, variability). Classroom staff survey responses were analyzed quantitatively in the aggregate to provide results of reactions, use, perceptions and reported changes in nutrition and wellness activities by students and classroom educators, as well as perceived support for HEHS in their centers. The survey results were then disaggregated by category of classroom educator (head teacher, assistant teacher, teaching assistant, other) to determine possible differences in overall reaction to the trainings. Descriptive statistics (frequency, mean, range, percentage) are reported. Inferential analyses were also performed (T-tests, ANOVA) to determine possible significant differences in responses between head teacher, assistant teacher, and teaching assistant, as well as possible differences in support between centers.

- 1. Addendum questions:** Noted earlier, as part of the focus group for kitchen staff, family/social workers, and parents, site visitors read aloud two addendum questions mirroring two questions from the classroom staff survey (A1. rating of trainings, and A2. personal changes since participating in HEHS) to family workers, kitchen staff, and parents, and their responses were tallied. A database was created to enter frequency of responses to the two addendum questions by kitchen staff, family/social workers, parents and most of the center administrators. Quantitative results for each addendum question were calculated and analyzed using descriptive statistics for all relevant focus group and interviewees combined, as well as disaggregated by stakeholder category (parents, family workers, kitchen staff) to determine possible differences in reactions, satisfaction, use, and personal health changes. (Data were collected on Addendum Question 1 (A1) only for those who attended CAS and/or CMOM trainings. Addendum results are presented in the aggregate in the appendices.)
- 2. Open-ended teacher survey items and focus group/interview responses:** Teacher surveys items as well as kitchen staff, director(s), parents, and family worker responses were analyzed in the aggregate and disaggregated using qualitative techniques of content analysis to determine emerging outcomes, themes and patterns. A more complete listing of open-ended teacher survey response is provided in the Appendix.
- 3. Observation Data:** Data gathered through observations (environmental scan and classroom observation) were analyzed quantitatively and qualitatively; items involving ratings and amounts were analyzed in the aggregate for all 22 classrooms combined, and descriptive statistics reported (i.e., mean, range/variability). Ethnographic - qualitative classroom dimensions (patterns of instruction, classroom climate, mealtime procedures, sample foods served, discourse, and interactions) were reported in narrative or case form, with frequencies reported when applicable.

FINDINGS

A. Implementation Model

- A *team model approach* to training those who influence and impact the health and wellness of children in Head Start Centers— kitchen staff, administrators, family/social workers, classroom staff, parents/guardians, and center support staff and specialists— was designed and implemented by United Way of New York City (UWNYC) and the Administration for Children’s Services (ACS) in eight demonstration Head Start centers in New York City.

- ⊕ A primary intention of the UWNYC/ACS HEHS demonstration project was to pilot a team approach to training all stakeholder groups within the eight Head Start demonstration centers who influence and impact children’s nutrition and wellness, rather than train only one or selected groups or individuals. The aim of implementing such an approach was to demonstrate its possible impact on increasing access to healthy foods, engaging children, families and staff in activities that lead to healthy eating, improving nutrition and health/wellness literacy, and developing nutrition/wellness policies in Head Start and Early Education Centers with the goal of preventing obesity and improving health for young children. With that aim in mind, and based on their experience and expertise, Children’s Aid Society and Children’s Museum of Manhattan were selected by UWNYC and ACS to design a series of nutrition and wellness workshops and implement those workshops to train Head Start kitchen staff, administrators, classroom staff, family/social workers, support staff, and parents/guardians, beginning in the fall of 2010.

- ⊕ Based on document review, focus groups, ETO records, and observations of trainings, a total of 36 trainings (4 provided by CAS and 32 provided by CMOM) under the auspices of United Way New York City and NYC Administration for Children’s Services were implemented. CAS and CMOM developed and provided a series of multiple nutrition and wellness related trainings to food service staff, educators, administrators, family/social work staff, building/support staff (e.g., nutritionists, janitors, secretaries), and parents and their children, from eight Head Start and Early Education Centers in New York City. Trainings for all Head Start stakeholder groups began in the fall, 2010 and continued through spring, 2011. (See Appendix A for overview descriptions of Children’s Aid Society and Children’s Museum of Manhattan trainings.)

B. HEHS Cohort Training: Participation and Attendance

- During Year 1 substantial progress was made in engaging and training a sizeable cohort of Head Start staff and families in activities designed to increase their nutrition knowledge, increase access to healthy foods for Head Start children, and promote informed decision making and practices about healthy eating and nutrition for children, families, and staff.
- ⊕ Based on the ETO database, 382 *individual* participants representing a comprehensive cohort of adults who impact children’s nutrition and wellness from the eight demonstration centers (kitchen staff, classroom staff, family/social workers, administrators, support staff – custodians, office staff, and parents) participated in HEHS trainings.³
- ⊕ A majority of individuals, 79%, attended multiple HEHS trainings; total attendance reached 929⁴ for all trainings combined.
- ⊕ In addition to those directly trained, staff (family workers, kitchen staff, and/or teachers) reported they conducted turn-key training, meaning they in turn disseminated what they had learned by providing new or expanded healthy eating workshops, activities, or materials to families in their Head Start centers .

Attendance at Children’s Aid Society Trainings

Table 1
Number of Kitchen Staff and Administrators Attending by Training Session

TRAINING	Number of Kitchen Staff	Number of Administrators (sites 7 & 8 share administrators)	Total # Attendees
Training 1:	20	8	28
Training 2:	19	5	24
Training 3:	19	5	24
Training 4:	13	1	14
Total for all 4 Trainings			90

Table 1 above shows attendance for all four (4) CAS trainings by kitchen staff and administrators. (A more detailed table of attendance by site and training is provided in Appendix C.)

- Kitchen staff from all 8 demonstration sites attended multiple professional development trainings conducted by CAS.

³ According to ETO records, approximately 382 individuals (staff and parents) from the 8 centers attended HEHS trainings. Approximate numbers are provided as there was a small discrepancy in attendance based on a repeat of a handful of repeated id numbers. Table 2 shows total attendance across all CMOM trainings by category and totals are therefore larger than the number of individual attendees. Total attendance differs from individual attendance in that one individual family/social worker, for example, may have attended two trainings, leading to a total attendance of two. Therefore total attendance in Table 2 is larger than the approximate 382 individual attendees derived from the ETO database.

⁴ 929 includes the total attendance of CMOM trainings (839) plus total attendance of CAS trainings (90).

- Administrators and/or administrative representatives from 7 of the 8 demonstration centers attended CAS training along with kitchen staff from their center.
- (See Appendix C) The number of kitchen staff from each center attending trainings varied, with a team of 3 attending most often (mode), followed by a team of 2 attending. With the exception of Training 4 in which kitchen staff from two centers reported they were unable to attend, attendance was solid and represented a high proportion of those invited to attend. (Administrators were invited to the first session and welcome to attend following sessions.)

Table 2 below shows aggregated attendance for all 32 CMOM trainings. (Note: Table 2 does not reflect number of individual attendees in each category. See Footnote 3 for further explanation and Appendix B for disaggregated findings by center and position.)

Table 2
Aggregate Totals for all CMOM Trainings combined across all 8 Demonstration Center Sites, by Position

Program Administrators and Staff (teachers and social workers)	Kitchen/Food Service Staff	Custodian	Secretary	Bookkeeper/Record Keeper	School Psychologist	Parents	Children	Total
548	41	23	12	6	5	89	115	839

- Over 65% of the total attendance to CMOM trainings were by Program administrators and staff.
- Parents and children (204; 89 + 115) accounted for just over 24% of the total aggregate CMOM training attendance.
- The number of CMOM trainings that kitchen staff from each of the demonstration sites attended range from 1 to 3, with an average of 3 trainings attended (See Appendix B).
- Each site had an average total attendance at CMOM trainings of 103, including both staff and families (See Appendix B).⁵
- Out of the 548 Program and staff who attended CMOM trainings, over 17% were social/family workers (See Appendix B).

⁵ This total includes attendance at multiple trainings by individual attendees at CMOM trainings.

C. Stakeholder Experiences: Reactions, Emerging Outcomes, and Perceived Support, Obstacles, and Challenges

The following section presents findings by each stakeholder group regarding; 1) reactions to HEHS and training, 2) emerging outcomes and impact of HEHS (including as applicable, Wellness Policies), and 3) perceived support, obstacles, and challenges.

The order of stakeholder results is as follows:

- ✚ Classroom Staff survey results for:
 - C1. Classroom Staff (head teachers, assistant teachers, teaching assistants)
- ✚ Focus group and interview results for:
 - C2. Administrators (directors, educational/program directors)
 - C3. Family/social workers
 - C4. Kitchen staff
 - C5. Parents/guardians

Note: Results of two the Addendum Questions posed during focus groups are presented in **Appendix D, Appendix G, and Appendix H**. Results of addendum questions were combined and analyzed and generally presented in the aggregate due to lower numbers of participants in some focus groups (making percentage reporting not applicable) and high similarity of response patterns across focus group /interviewees.

- Appendix D (Reactions to Training) presents aggregated or combined quantitative results of the addendum question (described in the methodology section) asked during the kitchen staff, family/social workers, and parent focus groups regarding their reaction to ten specific elements of the HEHS trainings.⁶
- Appendix G (Personal Changes in Nutritional and Health Practices Since HEHS) presents aggregated or combined quantitative results of the addendum question (described in the methodology section) asked during the kitchen staff, family/social workers focus groups and administrator interviews regarding changes in their personal nutritional and health practices since participating in HEHS.⁷
- Appendix H presents additional open ended comments to the addendum question asking about personal changes.

⁶ Administrators were not included in the first addendum question regarding reactions to training.

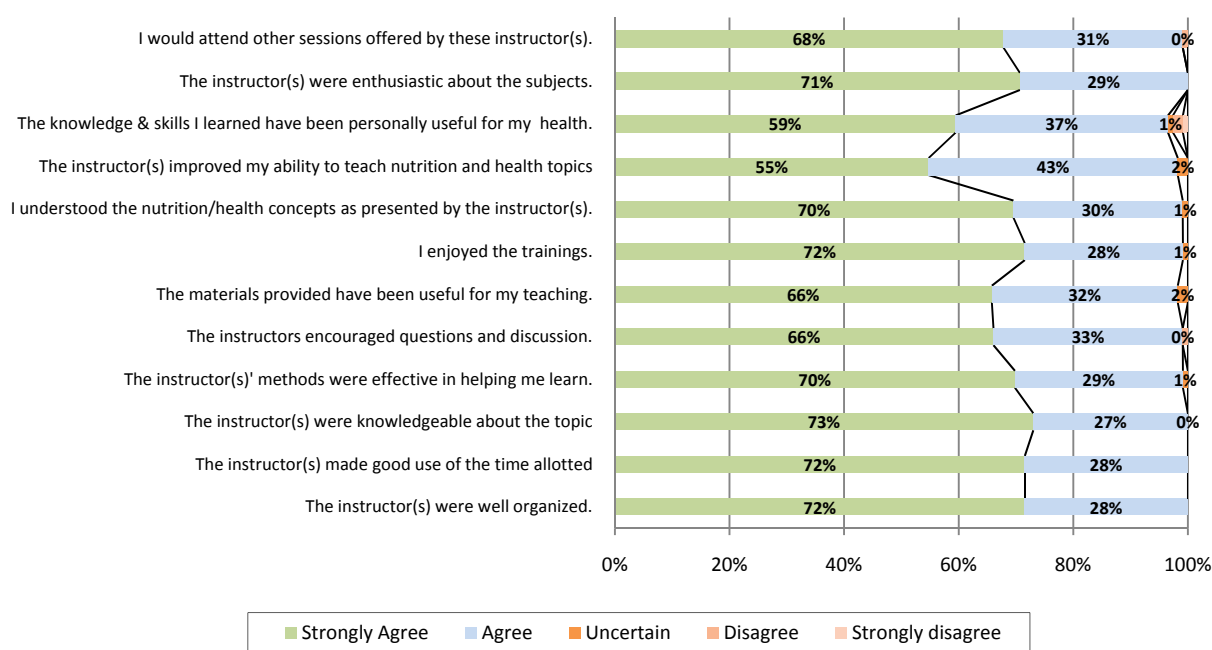
⁷ Parent/guardian responses to the second addendum question regarding personal changes in nutrition and health are reported separately in Table X in the Parents/Guardians section (C5) of this report.

C1. CLASSROOM STAFF (Head teachers, Assistant teachers, Teaching assistants)

REACTIONS TO TRAININGS BY CLASSROOM STAFF ⁸

- Classroom staff (head teachers, assistant teachers, teaching assistants, classroom support staff) overwhelmingly had positive reactions to the trainers and training sessions they attended :

Figure 1
Classroom Staff Reaction to Trainings
(N = 116)



Shown in Figure 1 above, teacher survey responses indicate that:

- ✚ One hundred percent (100%) found the training sessions and instructors
 - well organized and made good use of the time allotted (72% strongly agreed; 28% agreed)
 - knowledgeable (73% strongly agreed; 27% agreed) and enthusiastic (71% strongly agreed; 29% agreed)
 - enjoyable (72% strongly agreed; 28% agreed)

⁸ Tests of significance were performed to determine possible extent of differences between head teachers, assistant teacher, teaching assistants and other classroom support staff to training and no significant differences were found in reactions to training.

- presented nutrition and health concepts in a way they could understand (70% strongly agreed; 30% agreed)

- ⊕ Just under 100% indicated:
 - the teaching methods used were effective in helping them learn (99%: 70% strongly agreed; 29% agreed)
 - instructors encouraged questions and discussion (99%: 66% strongly agreed; 33% agreed)
 - they would attend other sessions by these instructors (98%: 68% strongly agreed; 31% agreed)
 - the materials provided have been useful for their teaching (98%: 66% strongly agreed; 32% agreed)
 - the instructors improved their ability to teach nutrition and health topics (98%: 55% strongly agreed; 43% agreed)

- ⊕ Ninety-six percent (96%: 59% strongly agree; 37% agree) indicated the knowledge and skills they learned have been useful for their own health.

- ⊕ Three –quarters (75%) of classroom staff reported that some, most, or all of the information in the trainings was new to them, while only 25% indicated the information was not new to them, specifically:
 - Eight percent (8%) reported that all the information was new,
 - Nineteen percent (19%) reported that most of the information was new to them
 - Almost half (48%) indicated that some of the information was new.

- Classroom staff gave high ratings to the materials, strategies, and resources they received during the trainings (See Table 3)

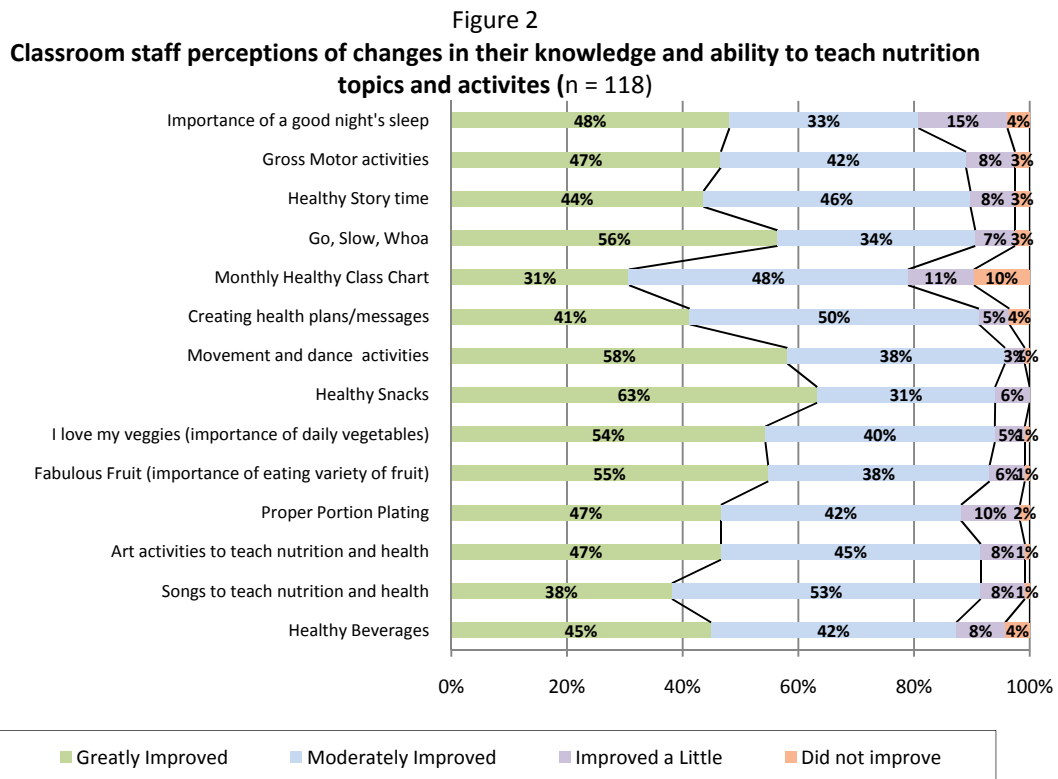
Table 3
Classroom Staff Satisfaction with Training Materials, Strategies, and Resources
(N = 117)

	Excellent	Good	Fair	Poor
Appropriateness for all my students	51%	48%	1%	0%
Aligned with the Head Start curriculum	59%	38%	3%	0%
Helpful in teaching essential Pre-K skills (language, math, social)	53%	43%	4%	0%
Easy to use in a Pre-K classroom	55%	44%	1%	0%
Helpful in brainstorming ideas to teach nutrition and health	59%	40%	2%	0%
Included specific suggestions for students with special needs	33%	49%	11%	7%
Promoted higher order thinking	46%	50%	4%	0%
Included a variety of activities related to nutritious eating and healthy living	60%	40%	0%	0%

- ✦ Close to or 100% (96% - 100%) of respondents rated the materials, strategies, or resources provided to them at the trainings to be “excellent” or “good” (See **Table 3**).
- ✦ Close to sixty percent found materials and/or strategies “excellent” in regard to:
 - Variety of activities related to nutritious eating and healthy living (60% excellent)
 - Helpful in brainstorming ideas to teach nutrition and health (59% excellent)
 - Aligned with Head Start curriculum (59% excellent)
- ✦ More than fifty percent found materials and/or strategies excellent in being:
 - Easy to use in a Pre-K classroom (55% excellent)
 - Helpful in teaching essential Pre-K skills (language, math, social) (53% excellent)
- ✦ Classroom staff respondents were about even in rating the appropriateness of the materials for all their students as excellent (51%) or good (48%).
- ✦ Materials, resources, and strategies as they related to meeting the diverse needs of special needs children had a more mixed rating from staff:
 - Thirty-three percent (33%) rated the materials and strategies as “excellent” in providing specific suggestions for student with special needs, while just under half (49%) rated them as “good” ; 11% rated them as “fair”; and 7% rated them as “poor”.

EMERGING OUTCOMES AND IMPACTS OF HEHS REPORTED BY CLASSROOM STAFF

- Improvement was reported by ninety-percent or more of classroom staff in their knowledge and ability to teach children about a variety of nutrition, health, and wellness topics as a result of their participation in HEHS.



- ⊕ Ninety-percent or more of classroom staff reported “great” to “moderate” improvement in their knowledge and ability to teach the following since participating in HEHS: (See Figure 2 above)
 - Movement and dance activities (96%)
 - Healthy snacks (94%) and Importance of daily vegetables (94%)
 - Importance of eating a variety of fruit (93%)
 - Art activities to teach nutrition and health (91%), Songs to teach nutrition and health (91%), creating health plans or messages (91%)
 - *Go, Slow, Whoa* (90%), Healthy story time (90%)
- ⊕ Close to ninety percent reported having greatly or moderately improved their ability to teach about Proper portion plating (89%), Gross motor activities (89%), and Healthy beverages (87%).

- ✚ Eighty –one percent (81%) perceived greatly or moderately improved ability in teaching about the importance of a good night’s sleep, and seventy- nine percent (79%) in creating Monthly Healthy Class Chart.

Table 4
Percent of classroom staff indicating implementing nutrition/health related activities since HEHS
(N = 116)

	Very often		Often		Sometimes		Rarely		Not at all		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Discuss healthy eating with children in my class	50	43%	54	47%	10	9%	2	2%	0	0%	116	100%
Make foods from scratch with children in my class	10	9%	20	18%	51	45%	24	21%	8	7%	113	100%
Read aloud to children from books with a healthy eating theme	25	22%	44	39%	37	33%	6	5%	1	1%	113	100%
Create time and activities for children to be physically active for at least 1 hour	71	62%	29	25%	12	11%	2	2%	0	0%	114	100%
Have children sing healthy eating songs	14	13%	44	40%	41	37%	9	8%	2	2%	110	100%
Invite kitchen staff to talk to children about the days' meals	8	7%	11	10%	27	25%	29	26%	35	32%	110	100%
Create healthy eating lesson plans	15	13%	35	31%	42	37%	17	15%	4	4%	113	100%
Have children make hands-on, art nutrition or healthy living projects	8	7%	42	37%	48	42%	13	11%	3	3%	114	100%
Use gross motor equipment in classroom or playground	61	54%	36	32%	16	14%	1	1%	0	0%	114	100%
Talk with other staff about nutrition-related activities or ways to implement HEHS	13	11%	34	30%	39	34%	18	16%	11	10%	115	100%

➤ A substantial proportion of classroom staff (70% - 100% depending on the activity) reported implementing a range of nutrition and wellness related activities in their classroom since their Center began participating in HEHS (see Table 4).

⊕ The top five activities implemented “very often” or “often” by classroom staff since HEHS began included:

- Discussing healthy eating with children in my class (90%: 43% very often; 47% often)
- Creating time and activities for children to be physically active for at least 1 hour each day (87%: 62% very often; 25% often)
- Using gross motor equipment in the classroom or playground (86%: 54% very often; 32% often)
- Reading aloud to children from books with a healthy eating theme (61%: 22% very often; 39% often)
- Have children sing healthy eating songs (53%: 13% very often; 40% often)
- Implemented, though less often by a majority of classroom staff were⁹:
 - creating healthy eating lesson plans (13% very often: 31% often; 37% sometimes; 15% rarely)
 - having children make hands-on, art nutrition or healthy living projects (7% very often; 37% often; 42% sometimes; 11% rarely)
 - talking with staff about nutrition related activities or ways to implement HEHS (11% very often; 30% often; 34% sometimes; 16% rarely; 10% not at all)
 - making foods from scratch (9% very often; 18% often; 45% sometimes; 21% rarely; 7% not at all)

⊕ Occurring least frequently was inviting kitchen staff to talk with children about the days meals (7% very often; 10% often; 25% sometimes; 26% rarely; and 32% reporting not at all).

⁹ On a scale of 1-5 with 5 “very often”, 4 “often”, 3 “sometimes”, 2 “rarely”, and 1 “not at all”, less frequently implemented activities were those with means of 3.4 or less due to higher percentages responding “sometimes”, “rarely, or “not at all”.

- In addition to classroom staff reporting increased knowledge and ability to teach children about nutrition and wellness topics, their attitudes and beliefs seem to reflect an understanding of the environment, their influence and role, as well as others, in engaging children in activities that promote healthy eating and wellness. Some statements also inferred perceived extent of progress being made in those areas by other staff.

Table 5
Classroom Staff Beliefs and Attitudes Related to Nutrition /Wellness and HEHS
(N= 117)

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't Know
The way I introduce new foods can influence my students' willingness to try new foods	49%	51%	0%	0%	0%
My students' nutrition behaviors and knowledge have improved since HEHS	27%	65%	3%	0%	5%
Kitchen staff in our center are making healthier meals since HEHS began	37%	56%	3%	0%	3%
Parents seem aware and interested in the healthier meals and snacks being served	21%	52%	12%	2%	14%
Parents seem more knowledgeable about the relationship between healthy eating and children doing well academically	18%	56%	9%	2%	16%
HEHS trainings were adequately addressed cultural beliefs that can interfere with healthy eating	24%	53%	9%	1%	13%
Teaching children about nutrition and healthy living should be required in all Pre-K classrooms.	50%	49%	2%	0%	0%
Programs like HEHS help prepare early childhood staff to teach about nutrition and health.	46%	53%	1%	0%	0%
What children eat as youngsters can impact their long term health.	58%	41%	1%	0%	0%
Children need daily physical or gross motor activity in addition to movement and dance.	61%	38%	1%	0%	1%

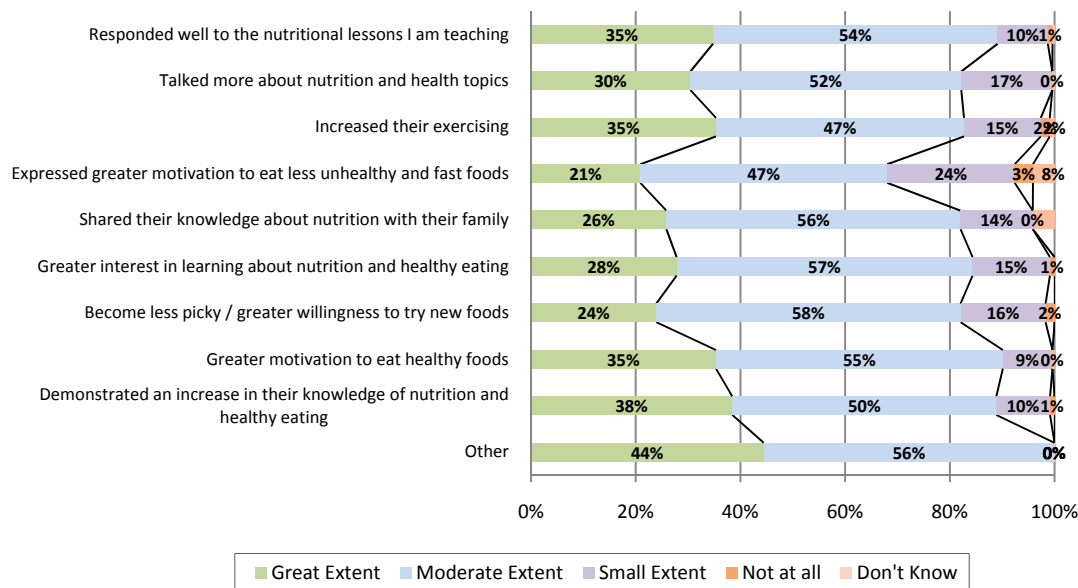
⊕ As shown in **Table 5** above, a substantial percentage of classroom staff expressed agreement with a wide range of statements reflective of environments, changes, curriculum, and interactions that support wellness and promote healthy eating in children:

- The way I introduce new foods can influence my students' willingness to try new foods, with 100% of agreeing (49% strongly agreeing; 51% agreeing)
- Children need daily physical or gross motor activity in addition to movement and dance (99%; 61% strongly agree; 38% agree)
- What children eat as youngsters can impact their long term health (99%: 58% strongly agree; 41% agree)

- Teaching children about nutrition and healthy living should be required in all Pre-K classrooms (99%: 50% strongly agree; 49% agree)
- Programs like HEHS help prepare early childhood staff to teach about nutrition and health (99%: 46% strongly agreeing; 53% agreeing)
- Kitchen staff in our center are making healthier meals and snacks since HEHS began (93%: 37% strongly agree; 56% agree)
- My students' nutrition behaviors and knowledge have improved since HEHS (92%: 27% strongly agree; 65% agree)
- While still positive with more than 70% perceiving progress being made, a lower percentage of classroom staff voiced agreement or strong agreement that:
 - HEHS trainings adequately addressed cultural beliefs that can interfere with healthy eating (77%: 18% strongly agree; 56% agree, while 27% either disagree (10%) or don't know (13%))
 - Parents seem more knowledgeable about the relationship between healthy eating and children doing well academically (74%: 18% strongly agree; 56% agree, while 27% either disagree (11%) or don't know (16%))
 - Parents seem aware and interested in the healthier meals and snacks being served (72%: 20% strongly agree; 52% agree, while 28% either disagree (14%) or don't know (14%))

Reported benefits of HEHS for Children by Classroom Staff

Figure 3
Classroom Staff perception of benefits of HEHS on children in their classroom
(N = 117)



- ✚ According to classroom staff survey respondents, 3, 4, and 5 year old children in their classrooms have benefitted from HEHS by demonstrating improved knowledge, attitudes, and behaviors concerning healthy eating and exercise (See **Figure 3**).¹⁰ More specifically these benefits included:

Children’s improved knowledge and interest in nutrition as demonstrated by:

- an increase in their knowledge of nutrition and healthy eating 99% (38% great extent; 50% moderate extent; 10% small extent)
- greater interest in learning about nutrition and healthy eating (85%: 28% great extent; 57% moderate extent; 15% small extent)
- engaged and positive response to the nutritional lessons I am teaching (89%: 44% great extent; 56% moderate extent; 10% small extent)

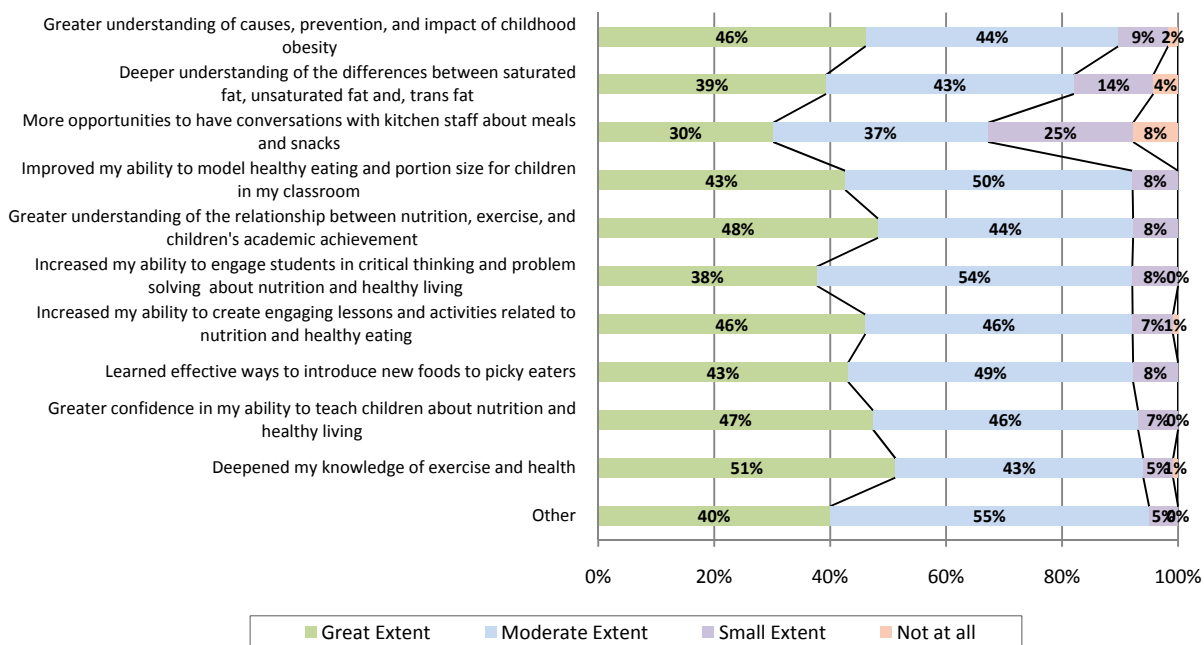
¹⁰ In interviews with administrators and brief, informal chats with teachers, several noted that other healthy eating and wellness programs have been implemented in their centers. Primarily these programs were *Eat Well, Play Hard* and Cornell Cooperative Extension’s program on healthy eating for parents. The vast majority of staff interviewed felt that the training and team approach implemented by HEHS has made a substantial, positive difference beyond or in building on and expanding what was gained from either of those 2 programs. (See focus group results for more perceptions on other implemented healthy eating programs in comparison to HEHS).

✚ Children exhibiting attitudes and behavior that support nutritional literacy, healthy eating, and wellness in school and at home. Since HEHS children have:

- greater motivation to eat healthy foods (99%: 35% great extent; 54% moderate extent; 9% small extent)
- become less picky and shown greater willingness to try new foods (82%: 24% great extent; 54% moderate extent; 9% small extent)
- increased their exercising (82%: 35% great extent; 47% moderate extent; 15% small extent)
- talked more about nutrition and health topics (81%: 30% great extent; 51% moderate extent; 17% small extent)
- shared their knowledge about nutrition with their family (77%: 26% great extent; 51% moderate extent; 14% small extent)

Reported Changes in personal practices by Classroom Staff

Figure 4
Percent of classroom staff reporting benefits in greater understanding and practices related to nutrition/health since participating in HEHS
 (N = 117)



➤ As shown in **Figure 4** above, Classroom staff report a number of benefits in their nutrition and health related understanding and practices since participating in HEHS:

✚ Ninety percent or more of classroom staff reporting doing the following benefits to a great or moderate extent:

- deepened my knowledge of nutrition (95%)
 - deepened my knowledge of exercise and health (94%)
 - greater confidence in my ability to teach children about nutrition and healthy living (93%)
 - improved my ability to model healthy eating and portion size in the classroom (93%)
 - learned effective ways to introduce new foods to picky eaters (92%)
 - increased ability to create engaging lessons and activities related to nutrition and healthy eating (92%)
 - increased my ability to engage my students in critical thinking and problem solving about nutrition and healthy living (92%)
 - greater understanding of the relationship between nutrition, exercise, and children's academic achievement (92%)
 - greater understanding of causes, prevention, and impact of childhood obesity (90%)
- ⊕ Eighty-two percent (82%) reported great or moderate improved understanding of the differences between saturated fat, unsaturated fat, and trans fat
- ⊕ Sixty-seven percent (67%) reported great or moderate increase in opportunities to have conversations with kitchen staff about meals and snacks.

Table 6
Percent of Classroom Staff Reporting Changes in Personal Nutrition/Health Practices Since Participating in HEHS (N=117)

	Great Extent	Moderate Extent	Small Extent	No Change/ Remain the Same	Less Often
	%	%	%	%	%
Learning and reading more about nutrition and healthy living	32%	58%	0%	9%	1%
Trying a variety of healthy foods	34%	58%	2%	5%	0%
Cooking at home more often	27%	52%	3%	17%	1%
Exercising more	25%	52%	12%	11%	0%
Healthy eating and exercise	29%	53%	8%	10%	0%
Checking food labels on cans and packages	36%	47%	8%	9%	0%
Shopping at green grocery or farmer's markets	22%	52%	2%	24%	0%
Using correct portion size when I eat	28%	58%	1%	12%	1%
Making meals with my family	24%	51%	1%	24%	0%
More water and less soda/sugary drinks	52%	39%	1%	7%	1%
Avoiding fast food restaurants	33%	1%	50%	13%	3%

- As shown in **Table 6** above classroom staff have reportedly increased the frequency (much more, more, and/or slightly more) of a variety of healthy eating and wellness practices in their personal lives, compared to before they participated in HEHS.
- ⊕ For over or close to 90% of classroom staff the health and nutrition practices reported to have increased include:

- Trying a variety of healthy foods (92%: 34% great extent; 58% moderate extent; 0% small extent)
 - Drinking more water and less soda/sugary drinks (92%: 52% great extent; 39% moderate extent; 1% small extent)
 - Learning and reading more about nutrition and healthy living (91%: 32% great extent; 58% moderate extent; 0% small extent)
 - Eating healthy foods (94%: 34% great extent; 58% moderate extent; 2% small extent)
 - Checking food labels on cans and packages (91%: 36% great extent; 47% moderate extent; 8% small extent)
 - Exercising more (89%: 25% great extent; 52% moderate extent; 12% small extent)
 - Using correct portion size when I eat (87%: 28% great extent; 58% moderate extent; 1% small extent)
- ⊕ For over or close to 80% of classroom staff, the following nutrition practices were reported to have increased, though somewhat less frequently than those above:
- Avoiding fast food restaurants (84%: 33% great extent; 1% moderate extent; 50% small extent)
 - Making meals with my family (76%: 24% great extent; 51% moderate extent; 1% small extent)
 - Cooking at home more often (82%: 27% great extent; 52% moderate extent; 3% small extent)
 - Shopping at green grocery or farmer's markets (76%: 22% great extent / 52% moderate extent / 2% small extent)

Wellness Policies

An anticipated outcome of HEHS is the development and implementation of wellness policies that align with HEHS and support access to healthy foods, engage children, families, and staff in activities that lead to healthier eating and ultimately reduce the frequency of diet related diseases.

- Classroom staff (N= 119) were asked in the survey if they see a role for themselves in developing and carrying out wellness policies: 65% indicated that they see a role for themselves in helping to develop and carry out wellness policies in their center, while 5% do not see a role, 12% are uncertain, and 18% did not provide a response.
- ⊕ Those who see a role for themselves describe it in relation to their position teaching children about the importance of healthy eating (e.g., fruits and vegetables) and wellness practices (exercise and sleep), as well as in relation to their interactions with parents and co-workers, moving the eating and physical activity norms within their centers to be healthier, and continuing to support the improvement of healthy eating and wellness in their centers. As was the case with other respondents, the policies classroom staff describe are currently more in the form of activities and approaches than policies, per se:

- Modeling health eating, including encouraging and collectively trying new foods
 - *In the classroom ... discuss the different types of healthy food.*
 - *Work with children daily telling them about the importance of eating fresh fruit*
 - *Role modeling proper nutrition and wellness*
 - *Invite the kitchen staff to 1) Do a cooking activity with the children, 2) Take the class to visit the super market and fruit stand, 3) Do more cooking activities in the classroom*
 - *Make class healthy eating recipe book*
- Sharing and disseminating information; encouraging parents to become more informed and involved with nutritious eating and wellness.
 - *Encourage more parent involvement – good nutrition starts at home*
 - *Encourage parents to help their children continue to develop healthy habits*
 - *I will continue passing the information to parents in the monthly meetings and whenever I have the opportunity to talk to them during house visits or any informal meeting or contact*
 - *Helping parents become more aware and concerned about their child's health and eating habits*
 - *Using knowledge I have gained to start conversations with parents, families, and students*
 - *Sharing what I've learned with others*
 - *Encourage exercises with parents*
 - *Take trips to farmers markets with parents*
 - *Networking, collaborating with coworkers, building on what was learned in HEHS; addressing cultural issues in healthy eating*
 - *Informing and being informed about healthy eating will benefit everybody's health*
 - *I can help to introduce a sense of cultural meals that can be adapted to healthy eating*
 - *Make suggestions through administration*
 - *Advocate for more variety in our school menu*
 - *Network with other staff members to come up with the ideas for center*
 - *I think I could help to educate parents, students, staff and families about the importance of starting off children at a young age of eating healthy foods, drinking water, and exercising daily. Because at an early age, I became very over weight and my family always said it was baby fat. But this baby fat grew more and more as I got older and the older you are overweight the harder it is to get the weight off and the worse health problems you will have. I have now lost weight and continue*
- Continuing to implement or support HEHS related activities; making healthy eating part of the social norm of conversations
 - *I would continue to give all support in more workshops talking about healthy eating. Continue integrating a balanced diet for children in our center. Also compliment the healthy eating with movements*
 - *Constantly role model for children to eat healthy*

- *Reminding admin during meetings ways we can incorporate healthy bodies for our children*
- *I will continue passing the information to parents in the monthly meetings and whenever I have the opportunity to talk to them during house visits or any informal meeting or contact.*
- *I will begin to talk about healthy eating to my class. I will read the lunch meals to the class and discuss Go-Slow-Whoa food*
- *By following supplied lesson plans as well as collaborating with co-workers on ideas and projects in this area*
- *Continue to reinforce health and nutrition with the children. Continue to have mini workshops with my parents. I can continue to have healthy cooking experiences with my children and share those recipes with their parents..*
- Respondents noted the importance of understanding the wellness policies to then implement them:
 - *It's important to review for oneself the wellness policies, and then implement hands-on activities in the classroom with the children*
 - *Policies are to be followed and believing in those policies will help me follow and teach the children with more knowledge*

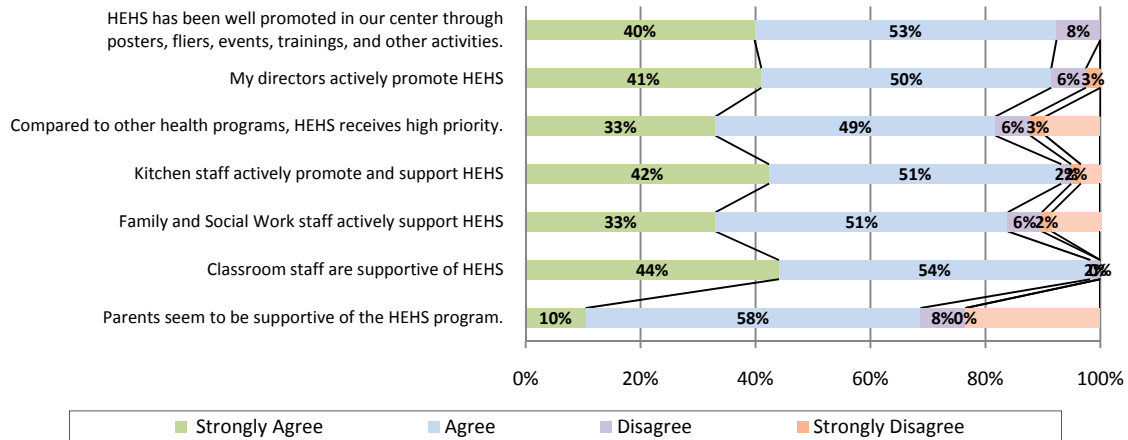
SUPPORT, OBSTACLES, AND CHALLENGES PERCEIVED BY CLASSROOM STAFF

Support Perceived by Classroom Staff

Perceived support by different stakeholders for an initiative can provide insight into how well the program was accepted, along with perceived obstacles and challenges that may have impacted the extent of emerging outcomes.

- Based on classroom staff survey results, respondents generally agreed that HEHS has been supported and promoted within their demonstration centers, but to differing degrees by different stakeholders. Overall, parents were perceived to be least supportive of HEHS by classroom staff.

Figure 5
Percent of classroom staff perceiving support for HEHS
 (N = 118)



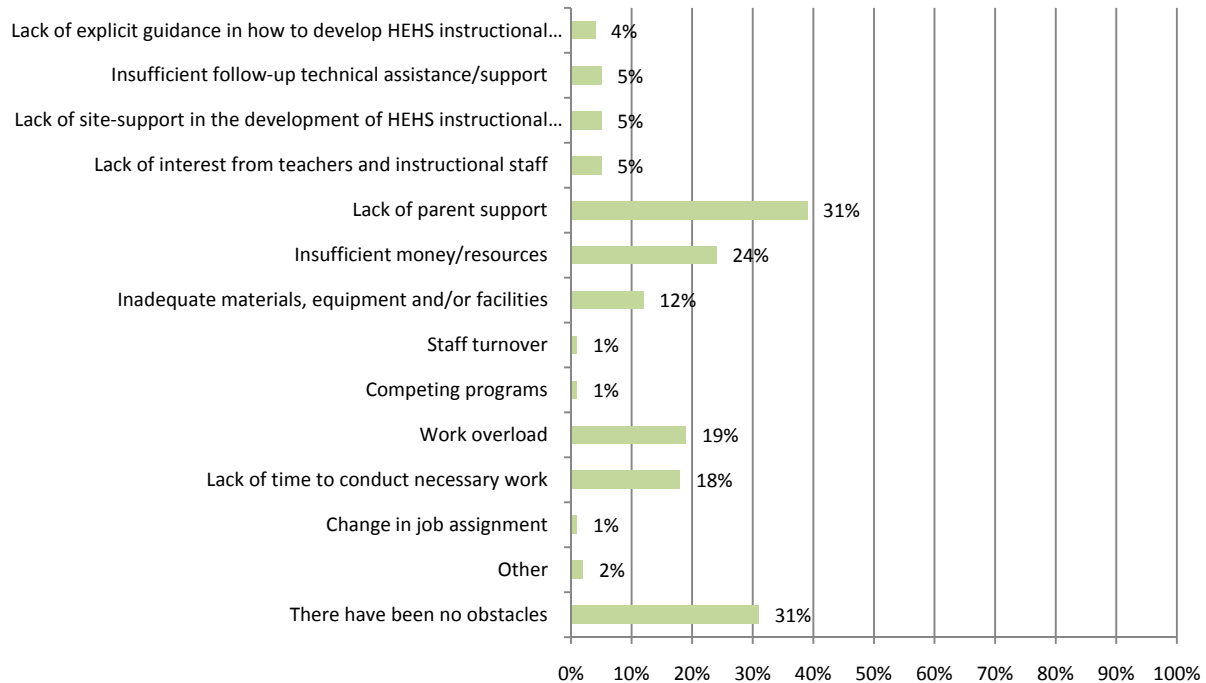
✚ As shown in **Figure 5**, results of the Classroom staff survey indicate that:

- 98% of classroom staff report being supportive of HEHS (44% strongly agree; 54% agree)
- 93% perceive that kitchen staff actively promote and support HEHS (42% strongly agree; 51% agree)
- 93% of classroom staff find that HEHS has been well promoted in their centers (40% strongly agree; 53% agree)
- 91% report that their directors actively promote HEHS (41% strongly agree; 50% agree)
- 84% found that family and social work staff actively support HEHS (33% strongly agree; 51% agree)
- 82% perceive that compared to other health programs, HEHS receives high priority (33% strongly agree; 49% agree)
- A lower percentage (68%) indicated that parents seem to be supportive of the HEHS program (10% strongly agree; 58% agree, while 8% disagreed, and 23% are uncertain)

Obstacles to implementing HEHS as perceived by Classroom Staff

- Classroom staff survey results in response to the question, What obstacles, if any, have you experienced in implementing HEHS in your classroom suggest that lack of parent support is the prime obstacle to implementation (See Figure 6 below)

Figure 6
Obstacles reported by classroom staff in implementing HEHS in the classroom (by percentage)
 (N = 119)



- ✚ Thirty-one percent (31%), the greatest percentage, reported lack of parent support; followed by,
 - Work overload (24%)
 - Insufficient money/resources (19%)
 - Lack of time to conduct necessary work (18%)
 - Inadequate materials, equipment and/or facilities (12%)
 - Insufficient follow-up technical assistance, lack of site support in development of HEHS instructional activities, lack of interest from teachers and instructional staff (all 5%)
 - Lack of explicit guidance in how to develop HEHS instructional activities (4%)

- ✚ Thirty one percent (31%) of classroom staff respondents reported there were no obstacles to implementing HEHS.

C2. ADMINISTRATORS

Results of eight administrator interviews conducted with administrators (i.e., executive directors, directors, educational/program directors; N= 12) at each center are presented in the following section.

ADMINISTRATOR REACTIONS TO HEHS IMPLEMENTATION AND TRAININGS

- Implementation Model: Administrators (i.e., executive directors, directors, educational/program directors, (n= 12)) in all 8 demonstration centers perceived the team training approach implemented by HEHS of having all staff hear the message from “others” outside their center as a useful and positive approach. Administrators across all centers identified the implementation model as helping in gradually lowering barriers of staff resistance to changing eating and exercise habits.
 - *Having all the staff hear the same message was invaluable, now we are on... or moving to the same page. – Director*
 - *The [CAS] trainings gave me an opportunity to learn more about cooking, and as an administrator attending the trainings with my kitchen staff, gave me a new found respect for those who have cooking skills including the kitchen and nutrition staff at our center. – Director*

- Need for HEHS: All administrators perceived a need for HEHS, viewed HEHS as “valuable”, and wanted to see HEHS continue. They also indicated that HEHS supported and built on what they had begun or were trying to implement in their centers in relation to healthier eating and physical activity for children, families, and staff.

- Reactions to Training: Administrators expressed overall satisfaction with HEHS trainings and with the trainers. As a respondent group though, they were more subdued than family/social workers, kitchen staff, classroom staff, and parents in their reactions and a few offered more detailed critiques based on their expectations.
 - ⊕ There was mixed satisfaction with the depth and pacing of some of the trainings and at two of the eight sites, administrators indicated they would have liked more depth of nutritional content for educator trainings. As an example, one pointed to an activity that related foods to the part of the body the food benefitted. Interestingly, many focus group/interview respondents had commented positively on this activity. The administrator would have preferred that in addition to stating which part of the body benefitted from a particular food, trainers had also explained why and how that food benefitted that body part in order to have deep understanding and be able to accurately and knowledgeably answer students’ questions and expand on their responses.
 - ⊕ Administrators at two Centers commented that not enough content was provided on the connection between food and cognitive development/academic achievement and one administrator noted that her staff had been interested in learning more about homeopathic/natural healing qualities of foods. One site found the materials to be activities rather than a curriculum and therefore was holding back on formally implementing the activities until the teachers had a chance to develop them into full lessons, which they would be doing this summer. At that same site, administrators

expressed concerns that what was being taught by CAS and CMOM may not be aligned with each other and with their nutritional advisor.

- ✦ A majority of administrators noted that the topic of partnerships was very important and wanted more professional development and technical assistance on developing partnerships. Several also indicated they would have liked the parent training to have occurred earlier in the year so as to engage parents earlier in activities related to healthy eating and gain support and understanding from parents in emerging policies such as limiting birthday celebrations and accompanying sweets. For another center, after providing feedback to trainers, staff worked more closely with trainers in developing their next two trainings, however the scheduling of 2nd and 3rd trainings was found to have been scheduled too closely together leaving them little time to hold an in-service to debrief and reflect on the earlier training.
- ✦ Administrators from all 8 centers noted that their staff enjoyed being introduced to new foods and enjoyed trying out and learning about interesting combinations of foods.
- ✦ Regardless of their personal reactions, all administrators were aware of how positively their staff had responded to the trainings and some tried to separate their own expectations for more content and depth from their staff's very positive and enthusiastic reactions. All want to continue their involvement in HEHS.

EMERGING OUTCOMES AND IMPACTS PERCEIVED BY ADMINISTRATORS ¹¹

- Administrators in all 8 centers noted that HEHS had clearly contributed to, strengthened, and/or built upon their earlier efforts to improve healthy eating.
 - ✦ Administrators described a gradual change from resistance to more informed and invested staff members. As one director explained:
 - *Since the workshops the staff has become more receptive to some of the menu changes from the kitchen staff. Teachers are not questioning some of the new foods as frequently because they understand it is part of the broadening of children's food awareness. We are no longer hearing, "Why is the kitchen staff making this ...the children will not like this". -Director*
 - ✦ At five of the 8 demonstration Head Start Centers, administrators reported that their participation in HEHS significantly contributed to improved knowledge, attitudes, and practices related to healthy eating by staff and increased access to healthy foods for children in their Head Start.
 - ✦ Administrators views of perceived improvement in nutrition and wellness knowledge and practices among families was more uneven, with pockets of improvement and signs of increased interest by more parents reported, to varying extents, at all centers.
- Administrators noted measureable progress in increased access to healthy foods by children in the 8 demonstration centers since HEHS began.
 - ✦ Several directors noted that they had already begun to try to make changes to increase the nutrition level of children's meals prior to HEHS, and centers were at various stages of

¹¹ See Appendix G for more findings regarding changes in administrators' personal practices.

these efforts when HEHS began. However, since HEHS these efforts have increased in their centers, in some cases, dramatically, resulting in noticeable improvements in access and consumption of healthy foods by children. Noted changes by kitchen staff with administrator support included:

- Planning new and healthier menus, in most cases by utilizing recipes they prepared at CAS trainings.
 - Preparing foods in tasty, healthy ways such as roasting vegetables. Some kitchen staff are experimenting with new ways to prepare healthy foods if they find that the initial recipe did not appeal to children.
 - Changing vendors as needed and increasing their purchase of healthy foods, such as fresh produce.
 - Lowering, or in some cases eliminating, the use of canned foods that can be purchased fresh or frozen (especially canned fruits). Two administrators noted they have stopped acquiring commodities (e.g., canned goods) having recently learned more about options they felt would provide more resources for healthier foods.
 - Preparing more foods from scratch rather than using pre-prepared foods.
 - Using whole grains rather than processed grains, such as using brown rice rather than white rice. Several administrators reported that they are planning to use whole grains exclusively by Fall, 2011.
- ⊕ Administrators commented that they were encouraging and supporting the use of healthier foods for parent meeting and family center events, but to varying effectiveness.

Wellness Policies

- Based on administrator interviews, the demonstration centers are in different stages of awareness, conversations, labeling, development, and/or implementation of wellness policies.
- ⊕ Administrators across all eight centers asked for clarification about what was actually meant by the term, wellness policies. Centers connected to larger organizations indicated they prefer to develop organizational wellness policies which will require time and thought that includes more than only staff from their Head Start Centers.
- ⊕ All administrators described changes they had made or were making. Examples included: serving healthier foods at parent and family events, having children decide on menus for special events, encouraging staff to exercise, no longer acquiring commodities, moving towards using only brown rice, having teachers implement healthy eating and wellness lessons, etc. However, they did not characterize these changes as policies per se, but more informally as “things” or “actions” they are doing now or moving towards.
- During interviews administrators from all centers spoke about HEHS being valuable, to varying degrees, in helping get greater buy-in and understanding of these changes and some did refer to newly developing “policies”. Often these policies involved birthday celebrations with some centers working to exercise greater control over the kind and frequency of birthday cakes and attendant snacks and goody bags. Some centers are asking parents to give pencils or other small gifts rather than candy, and asking parents to volunteer in the classroom to organize

games, focusing more on the “festivities” than the food at birthdays. Their view is that birthday cakes and candy were being served far too often and their hope was that with a greater understanding of the importance of healthy eating in young children from exposure to HEHS, they would have less push back for these emerging policies from staff and families. Some centers described new policies as everyone having to try, even trying a tiny taste of new foods, while others noted they do not have a policy that all new foods must be tried.

SUPPORT, OBSTACLES, AND CHALLENGES PERCEIVED BY ADMINISTRATORS

Support for HEHS

- Administrator interview responses generally coincide with classroom staff survey patterns indicating that HEHS was supported in the centers. This support, however, was often described as “gradual” by administrators about members of their staff, particularly about classroom staff. By the time of the site visits in June staff were described by administrators as progressively supportive of the program, more interested in the new foods and recipes being served, and exhibited improved attitudes and understanding.

Obstacles and Challenges

- According to administrators obstacles and challenges to more fully putting into practice what was learned during trainings remain and include:¹²
 - ⊕ Greater parent involvement. Administrators agreed that more needs to be done to achieve more widespread involvement and interest from families in relation to the goals and objectives of HEHS.
 - ⊕ In a Catch-22, administrators named a variety of variables affecting families that may interfere with implementation that need to be addressed including those related to access to fresh and healthy foods such as:
 - Expense of fresh produce and healthy foods which many families feel is not within their budgets.
 - Difficulty of finding and affording farmers' markets
 - Finding a local supply for organic foods (noted as an obstacle by kitchen staff and parents)
 - Lack of fresh quality produce in the community.
 - ⊕ Improvements in staff support for the healthier meals being served
 - ⊕ Improvements in their own and their staff's modeling and practice of nutritious eating and exercise habits to more effectively promote healthy eating for a healthy start.

¹² Recommendations to overcome obstacles and to sustain progress were offered by stakeholders in each center and those recommendations that emerged from focus groups, interviews, and surveys are listed in the conclusions and recommendations section of this report.

C3. FAMILY/SOCIAL WORKERS

Results of the eight family/social worker focus groups, conducted at each center are presented in the following section.

FAMILY/SOCIAL WORKERS REACTIONS TO HEHS IMPLEMENTATION AND TRAININGS¹³

- Implementation Model: Family/ social workers in all 8 sites (N= 23) agreed on the value and effectiveness of the team approach model, which promoted having “ everyone on the same page”, increasing communication among staff about healthy eating as all participated in activities together, and helping all staff understand they had a role to play in improving or even hindering children’s willingness to eat healthy foods and their nutrition practices.
 - *I got reassurance by trying things with other people. So I really liked being introduced to new foods and trying a variety of new foods and combinations of foods within a supportive environment; At first I was hesitant to try new foods and raise my hand, but they were so encouraging and let us try to make our combinations of things. There were so many foods I was never exposed to before and it was reassuring to be with a group and have someone take the first bite and you see they are still alive, and even wanting more... -Family Worker*

- Reactions to Trainings: Family/social workers in all 8 sites were very enthusiastic about the trainings they attended. They commented on the “fun” nature of the trainings and how much they enjoyed being introduced to new foods. Several spoke of the fear they felt of actually trying new foods but with gentle nudging from the trainers and peers, trying and being surprised at how much they enjoyed new healthy food combinations. Several family workers noted they felt they could contact trainers by phone anytime with questions. Similar to all other stakeholder groups, family/social workers reported on the sense of fun, engagement, and enjoyment due to the high level of energy of the trainers and the hands-on, collaborative nature of the trainings.
 - *I would not have tried these foods just by myself, but through the encouragement of the trainers and co-workers I was more willing to experiment. - Family Worker*

 - Approximately seventy-five percent of family/social workers reported that the training was valuable in making them more aware of what they model with their words and actions about healthy eating and trying new foods when they are in the classroom during mealtimes, the effect of what they inadvertently model (walking around the center with a soda in their hand), their role in speaking with parents about healthy eating, and the kind of foods and beverages they provide for parent meetings, workshops, and family events.

 - A highlight for family/social workers was a training session activity in which they reflected on the extent of balance in their lives, and setting related personal goals. Most family workers indicated they have been using the knowledge they

¹³ See Appendix D for more findings related to Family/social workers reactions to trainings.

gained in parent workshops. Some felt the materials were good learning tools to give or use with families.

- 100% of family/social workers reported that the goals and purpose of HEHS was directly in line with their work. Therefore, they would have liked trainings – or future trainings and technical assistance - to have content designed to meet their roles, needs, and work:
 - *The materials and handouts were mainly designed for teachers. There were some materials for family workers concerning personal goals but not as much in the way of helping parents. The diagram of the body was useful in that it helped me learn what to eat more of and we could have parents make a diagram of a body too. But we could really use a training designed just for family workers about how to tie in nutrition and exercise with what we're already working on such as housing, and learn strategies to introduce and discuss healthy eating and exercise to families.*
 - *It would be very helpful to get assistance on how to update the intake form for new families enrolling in our center that incorporates more information about food availability, diet, and exercise.*
 - *As family workers we are the first line to see parents. The information we get we can pass on to parents to instill healthy eating at home. We see children's medical records and if they are low in iron, for example, we can recommend certain foods. We could use further training and materials for social workers...how do you introduce these topics for families in shelters, how to explain to a parent that a child is overweight and giving whole milk or fast foods is not helping your child; ways to teach us so we can help parents realize the child needs more of certain foods, showing parents there are different ways to introduce and get children to eat healthy; it's up to us to inform parents not only the impact of healthy eating now but as their children grow up.*

✚ Family workers, like administrators, noted that the development of partnerships is a critical component of sustaining the project and the current momentum. They would like additional training and assistance in how to develop partnerships as the training they received was not really adequate in helping [them] take the next steps or help to influence policy that in turn influences families in their centers.¹⁴

¹⁴ In comparing other healthy eating programs to HEHS, comments included:

a. *HEHS is building on what we have started in Eat Well, Play Hard. HEHS was more dynamic, better presentations, more interactive, and we learned more.* b. *"Eat Well, Play Hard was good but not all groups of staff could go. It was mainly for children in the classroom, not like HEHS where everyone was included."* c. *"Eat Well Play Hard was good because the lessons were age appropriate and needed less modification than HEHS's like Go, Slow, Whoa which we felt needed to be modified. Also, there was no hand-out from HEHS on introducing new foods to children and on how to react to new foods. Eat Well Play Hard did expand on that and there was a handout - however, overall HEHS is far more comprehensive."* d. *"What we get from ACS is inconsistent and the Department of Health trainings are not helpful. The trainings on asthma, diabetes and hypertension are kind of boring and repetitious – we just listen there's no doing."*

- *We need partnerships to help families get what they need. But we needed [trainers] to elaborate on strategies for developing partnerships and ideas for parents to cook at home.*
- *Family workers have the potential to help improve health of families in a life changing way. We need training to help us help low-income families stretch dollars, we need to institute policies across the city to have something tangible to give families such as incentives or gift cards to Whole Foods, discount cards from supermarkets such as Trader Joe's – places where they can get the quality of food HEHS teaches their family needs.*

EMERGING OUTCOMES AND IMPACTS PERCEIVED BY FAMILY/SOCIAL WORKERS ¹⁵

- Family/social workers across all 8 demonstration centers reported a range of nutrition and health benefits including personally and professionally meaningful changes in behavior and practice since participating in UWNYP/ACS HEHS.
- ⊕ Family/social workers in all eight centers noted their improved and broadened knowledge and understanding of nutrition as a result of their participation in HEHS and report an increased application of that knowledge in offering workshops on healthy eating for families. They reported increased knowledge of:
 - Hidden sugars in foods, especially soda and fruit juices
 - Hidden fats and salt in processed foods, especially fast foods
 - How and why to read food labels
 - Healthy portion sizes
 - *Go-Slow-Whoa* foods (Healthy, Moderately Healthy, Unhealthy Foods)
 - *The purpose of HEHS is to incorporate activity and excitement with healthy eating and the training has most definitely been helpful in meeting those goals. Some activities like creating your own parfait were constructed for children but I really enjoyed them... New for me also was incorporating anything green or other colors - to make a green salad. I never thought of putting peas or red pepper in a salad. I've never been exposed to that before and I would have been shaky trying it on my own. -Family/social Worker*
- ⊕ Increased openness and willingness to try new healthy foods and new food combinations that enhance nutritional intake and taste; challenging and changing assumptions about healthy eating.
 - *Healthy and good tasting don't usually go together. Healthy meant unappetizing... Unless you are exposed to something else that's just what you thinkHEHS is helping with changing those incorrect assumptions that are contributing to us being unhealthy*

¹⁵ See Appendix G and H for more findings related to changes in practice reported by family/social workers.

- ⊕ Increased nutritional level of their own family meals; use of whole grains, smaller portions of rice, less meat, more water, more varied salads with more ingredients
 - *When they showed how much sugar was in soda and then in fruit juice, and even ketchup- that was very effective ... we were amazed ... we were all so surprised... I like soda, and what I thought was healthy juice,... even juice that's 100% juice, we had no idea how much sugar was in 100% juice. I don't drink soda now ...I can'tthey [the trainings] made me too aware of it [the sugar content] and how if I drink it I model it for my family and the children. - Family/social worker*
- ⊕ Planning and providing healthier foods for parent meeting and family center events.
- ⊕ Family/social workers described greater support for the promotion of a team approach to creating healthier environments: Conversations have shifted, norms are shifting in what we 'allow' each other to bring in to eat ...in what we serve at parent meetings... in what we talk about with parents and co-workers...in what we buy and serve our families....we support and try to encourage each other...healthy eating has become our water cooler talk.

Families have busy schedules and think it's easier to go to McDonald's but the idea is to look at those assumptions and see it is really easier and cheaper to cook meals at home. It's changing views and then talking about it – not just going to training but talking about it with families, co-workers, children, and your own family and friends. For our teachers it's been about changing the way they talk to children about food- about being open to trying new foods, understanding and being able to explain about healthy eating. It's an introduction to being conscious of what you are eating. It's changed the way I eat. If I'm a family worker and I don't eat correctly, how can I ask anyone else to? [HEHS] has really made me aware of how much of a role model I am to children and families. ... I really feel it's been critical in moving us in the right directionhopefully HEHS will continue and we can get the support and ...training we need to increase and improve what we've started.... Family/Social Worker

- ⊕ All noted benefits to children in an increase in healthier foods being served in the 8 demonstration centers since HEHS began notably:
 - more whole grains
 - less canned fruit and vegetables
 - more homemade foods
 - CAS healthier recipes

- ⊕ HEHS helping to promote children's social development through exposure and familiarity with new foods:
 - *HEHS is ... helping with children's social development. Already having exposure to different vegetables in green salads and different kinds of foods, and all these things helps in social situations, because you don't feel ignorant and unsure of what you're supposed to do, you feel more confident, which makes you more comfortable and less socially awkward. If you're at lunch with people who already know about these things you don't feel isolated or afraid to eat something. It's like knowing what fork to use. Having these shared experiences and exposure really helps social development*

Wellness Policies

- When asked about wellness policies during focus groups, family/social workers were uncertain exactly what was meant by wellness policies. At each of the eight centers family/social workers referred to activities or policies related to trying to limit sugar such as celebrations like birthday parties. Family/social workers generally were not able to speak directly to larger wellness policies. The link between HEHS and wellness policies was made by several family/social workers in describing HEHS, and as something yet to come as influenced by HEHS:
 - *HEHS is about promoting healthy eating habits, like less juice, more water, more veggies, and it's been effective, slowly at first. It's about teaching new recipes and challenging assumptions that if something is healthy it tastes bad...or healthy food is too expensive. It's about learning the impact of healthy eating on obesity and high blood pressure....HEHS has provided a whole new way of paying attention to health style...of looking closely at ingredients in foods... -It's a holistic health program designed to help change the views of families and staff and to help shape new health policies for staff.*

SUPPORT, OBSTACLES, AND CHALLENGES PERCEIVED BY FAMILY/SOCIAL WORKERS

- Family/social workers noted similar obstacles and challenges to those noted by administrators in implementing HEHS. Similar to administrators, family/social workers indicated that more activities and effort needs to be put into gaining parent involvement and interest in relation to the goals and objectives of HEHS.
- ⊕ Similar to administrators, family/social workers also noted variables affecting families that may interfere with families' implementation of HEHS such as:
 - Expense of and access to fresh produce and healthy foods which many families feel is not within their budgets.
 - Difficulty of finding and affording farmers' markets
 - Finding and affording some of the foods introduced at the workshops such as sunflower butter and the whole wheat crackers. Comments such as, "*Our bodegas don't carry hummus*" and "*there are no Trader Joe's in our neighborhood*", were common.
- ⊕ Availability and Perceived Ease of Fast Food Restaurants
 - It was reported that many of the parents do not cook for themselves or their families. Such practices were reported to lead to buying fast food at the many fast food outlets that "permeate the neighborhoods". A "wishful goal" of one center is to develop a space for cooking and recipe development training.
- ⊕ Traditions and Beliefs
 - In addition to a reported low turnout for the parent workshop, staff noted struggles they encounter in increasing parents' nutrition literacy and helping parents make more informed and healthier eating decisions. These often involve beliefs such as that whole milk is better for their children, to traditions that a full plate of meat and white rice is the right way of taking care of your family.
- ⊕ Exercise
 - Family/social workers recognized parental concerns of neighborhood safety in parents' hesitancy to allow their children to play outside. Family/social workers indicated that they and parents are not fully aware of possible "free" exercise resources in the community such as indoor swimming pools as parents cannot afford gyms. Family/social workers, like administrators, were aware of these issues but want to increase understanding of the importance of exercise as they reported that some parents push their Head Start aged children in strollers rather than have them walk with them to school
- ⊕ At the same time family/social workers have pointed out issues in relation to parent involvement across the centers they have also noticed change in parents:
 - *We have noticed an increase in the number of parents who are using some of the nutrition information that was available in our center. It had been there before HEHS but now more parents seem more interested. They are asking questions and noticing the new menus too. - Family/Social Worker*

C4. KITCHEN STAFF

Results of the eight kitchen staff focus groups (N= 16) conducted at each center are presented in the following section.

KITCHEN STAFF REACTIONS TO HEHS IMPLEMENTATION AND TRAININGS ¹⁶

- Need for HEHS: Kitchen staff generally agreed on the importance of the goals of HEHS. Some commented that their center had already begun to implement healthy eating but found the implementation model to be useful in supporting their efforts.
- Implementation Model: Kitchen staff from across the eight centers who participated in the focus groups (N= 16) expressed enthusiasm and appreciation for HEHS overall. All kitchen staff responded positively to the use of the team approach model in which all staff and families received training with the same message and within the same time frame. The training allowed *"us to all be on the same page"*.
 - *Having everyone trained, and in the same time ...there are no words...the smartest thing... it made a huge positive difference in promoting healthy eating ... and it helped tremendously in slowly lessening resistance to new recipes and foods – Kitchen Staff*
 - *At first I was afraid of classes, I didn't know what to expect, but the way they did it and because we got to do everything I didn't feel pressure and I learned and understand*
- ⊕ The team approach and sense of inclusiveness was especially appreciated by kitchen staff who often expressed a sense that it validated their worth and highlighted their contribution to increasing access to healthy foods, and helped give a clear message and support to all staff and families ¹⁷:
 - *Because we all were included [in HEHS] it made us feel more a part of things and appreciated and important. Because the teachers and administrators were learning what we were learning, it made it easier for us to make changes and have people accept the changes...in the menus because everyone understood why we were doing it...otherwise we don't have the power to make changes or have children be willing to try the new foods so they begin to eat healthier - Kitchen Staff*
- ⊕ Kitchen staff whose nutritionist had not attended trainings suggested it would be beneficial to have their nutritionist attend the trainings to all be on the same page

¹⁶ See Appendix D for more findings related to kitchen staff reactions to training.

¹⁷ Interestingly, results of focus groups with all stakeholder groups indicate that each group spoke about the value of having other categories of staff learn about nutrition and healthy eating, with each perceiving the other to have been somewhat to very resistant to serving healthier foods. Kitchen staff spoke about the need to have administrators, parents, teachers, and family/social workers learn about healthy eating; administrators named kitchen staff and teachers as needing nutrition knowledge, and family/social workers identified teachers and kitchen staff as in need of nutrition knowledge.

regarding menu goals. This was especially the case for kitchen staff who felt they had limited power to implement changes in their center menus.

➤ Reactions to Trainings: Kitchen staff respondents from each of the eight centers expressed a sense of gratitude at having the opportunity to attend trainings, routinely commenting on the effectiveness and worth of the program and trainings.

⊕ During focus groups, it was difficult to separate reactions to the trainings from the positive impact the trainings have had on kitchen staff personally and in their work. During focus groups kitchen staff often highlighted similar features of HEHS and the CAS trainings they found most useful and effective in helping them gain knowledge, rethink their assumptions about healthy eating, and in propelling them to change their practices. For a high percentage of kitchen staffs these features included:

- Ongoing, high level of interaction between and among participants and trainers
- The variety and number recipes provided.
- Hands on training in which there was learning by doing, and gaining familiarity and comfort in making new, healthy recipes.
- Sense of being part of a community of learners; the opportunity to meet, share, work, learn, question, and develop relationships with kitchen staff from the other demonstration sites and CAS trainers. Several kitchen staff reported they have remained in touch with peers they met at the trainings.
- Lack of being lectured and therefore not becoming passive listeners.
- Nutrition information presented in an accessible, understandable, meaningful way that resonated with participants.
- Sense of connection and caring from the trainers not only about the health and wellness of children but the participants' own health which served to inspire and motivate.
- Individualized feedback on their menus.

⊕ Kitchen staff from all sites indicated they had nutrition related trainings prior to HEHS. Asked to compare HEHS trainings to prior training, 100% of respondents rated HEHS trainings superior to other trainings they had attended.

*They [the trainers] showed us love...yes, love... they care , really” as she widens her eyes and shrugs her shoulders quizzically, in a sort of disbelief, “with their whole heart they wanted to be a team with us I don’t know how else to say it. I never experienced such a thing, . We became like a family. I called a trainer just as a friendly call... I still talk with another lady who I met there [at the CAS trainings] ... who works also in kitchens. We call each other on the telephone and we are going to meet ...yes, one lady she lives near me and so we [talk] about recipes and cooking and now we are friends because of the [HEHS] and we set [a] plan to meet.
-Kitchen staff*

EMERGING OUTCOMES AND IMPACTS: KITCHEN STAFF

- Kitchen staff at all 8 centers reported nutritional improvements in their menus as a result of participation in HEHS; ETO and Menu Rubric data support those claims
- ⊕ A review of ETO data indicates that kitchen staff at all eight demonstration centers have incorporated the new recipes provided and practiced at the CAS trainings.
 - On average centers incorporated 14 of the 43 new recipes provided by CAS into center menus, and the number of new recipes tried ranged from 4 to 24. Note: ETO data on number of new recipes tried was collected in March, 2011, and does not necessarily reflect the possible number of additional new recipes incorporated into menus since that date.

Table 7 on the following page shows results of pre-post assessment of all 8 Center menus. Menus from Fall 2010 (pre- HEHS) and Spring 2011 (post- Year 1 HEHS) were compared using a menu rubric. The Menu Rubric was designed to assess changes in the nutritional quality of meals served at the HEHS demonstration centers (See Methodology section). The rubric included 6 criteria upon which meals were rated. Ratings were from 5-1, with 5-exemplary, 4-good, 3-basic, 2-fair, and 1-deficient. (Footnote) In cases where the ingredients or cooking procedures were not clear (e.g., unclear if ingredient was whole grain or if the item was homemade or pre-prepared) scores were not assigned.

Menu Rubric Scoring	Average	Center 1	Center 2/3	Center 4	Center 5	Center 6	Center 7	Center 8
Legend: Scale of 1-5, with 1 Poor/Deficient, 2 Fair, 3 Basic, 4 Good, and 5 Exemplary								
Protein: Variety, Type, and Frequency of Protein Use								
2010 1a - Type of Protein Source for Lunch	2.6	1.5	4.0	4.0	2.0	1.0	2.0	4.0
2011 1a - Type of Protein Source for Lunch	4.0	4.0	4.0	4.0	4.0	3.0	4.0	5.0
2010 1b - Frequency of Plant Based Protein Use for Lunch	1.1	1.0	2.0	1.0	1.0	1.0	1.0	1.0
2011 1b - Frequency of Plant Based Protein Use for Lunch	1.4	1.0	2.0	1.0	3.0	1.0	1.0	1.0
2010 1c - Variety of Protein for Lunch	4.3	4.3	4.8	4.3	3.8	4.8	4.5	3.8
2011 1c - Variety of Protein for Lunch	4.5	4.3	4.8	4.5	4.8	5.0	4.8	4.0
2010 1d - Frequency of Meat/Poultry Based Protein for Lunch	2.3	2.0	3.0	3.0	1.0	3.0	3.0	1.0
2011 1d - Frequency of Meat/Poultry Based Protein for Lunch	3.5	3.0	3.0	4.0	5.0	3.0	4.0	3.0
2010 1e - Frequency and Type of Dairy as Protein	4.7	5.0	5.0	5.0	5.0	4.0	5.0	4.0
2011 1e - Frequency and Type of Dairy as Protein	4.7	5.0	5.0	5.0	4.0	5.0	5.0	4.0
2010 Average Score	3.0	2.8	3.8	3.5	2.5	2.8	3.1	2.8
2011 Average Score	3.7	3.5	3.8	3.7	4.2	3.4	3.8	3.4
Improvement/Decline	↑ 0.6	↑ 0.7	→ 0.0	↑ 0.3	↑ 1.6	↑ 0.7	↑ 0.7	↑ 0.7
Whole Grains: Frequency and Variety Breakfast, Lunch, and Snacks								
2010 2a - Frequency of Whole Grains : Overall for Breakfast, Lunch, and Snacks	2.0	2.0	2.0	4.0	1.0	1.0	3.0	1.0
2011 2a - Frequency of Whole Grains : Overall for Breakfast, Lunch, and Snacks	2.7	2.0	3.0	4.0	2.0	2.0	3.0	3.0
2010 2b - Variety of Whole Grains for Breakfast, Lunch, and Snacks	1.6	2.7	1.8	1.0	0.8	1.8	2.3	1.0
2011 2b - Variety of Whole Grains for Breakfast, Lunch, and Snacks	2.4	2.3	1.5	1.8	2.8	3.8	2.5	2.5
2010 Average Score	1.8	2.4	1.9	2.5	0.9	1.4	2.6	1.0
2011 Average Score	2.6	2.2	2.3	2.9	2.4	2.9	2.8	2.8
Improvement/Decline	↑ 0.8	↓ -0.2	↑ 0.4	↑ 0.4	↑ 1.5	↑ 1.5	↑ 0.1	↑ 1.8
Homemade and Processed Foods								
2010 3a - Frequency of Homemade Foods for Lunch	4.7	5.0	5.0	5.0	4.0	4.0	5.0	5.0
2011 3a - Frequency of Homemade Foods for Lunch	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
2010 3b - Frequency of Homemade Foods for Breakfast	2.9	4.0	3.0	2.0	4.0	2.0	4.0	1.0
2011 3b - Frequency of Homemade Foods for Breakfast	3.6	4.0	3.0	5.0	4.0	3.0	3.0	3.0
2010 3c - Quality of Pre-Prepared Foods for Breakfast	1.6	2.0	1.0	3.0	1.0	1.0	2.0	1.0
2011 3c - Quality of Pre-Prepared Foods for Breakfast	2.1	2.0	2.0	3.0	2.0	1.0	3.0	2.0
2010 Average Score	3.0	3.7	3.0	3.3	3.0	2.3	3.7	2.3
2011 Average Score	3.6	3.7	3.3	4.3	3.7	3.0	3.7	3.3
Improvement/Decline	↑ 0.5	→ 0.0	↑ 0.3	↑ 1.0	↑ 0.7	↑ 0.7	→ 0.0	↑ 1.0
Fruits and Vegetables - Frequency and Types of Fruits and Vegetables								
2010 4a - Variety of Fruits for Breakfast, Lunch, and/or Snacks	4.7	5.0	5.0	5.0	5.0	4.0	5.0	3.8
2011 4a - Variety of Fruits for Breakfast, Lunch, and/or Snacks	4.6	5.0	5.0	5.0	5.0	3.0	5.0	4.0
2010 4b - Variety of Vegetables for Breakfast, Lunch, and/or Snacks	3.9	4.0	4.5	3.0	3.0	4.5	4.0	4.0
2011 4b - Variety of Vegetables for Breakfast, Lunch, and/or Snacks	3.8	4.0	4.0	3.0	3.5	4.0	3.3	4.8
2010 4c - Variety of Techniques Used to Prepare Vegetables and Fruits for Breakfast, Lunch, and/or Snacks	4.0	5.0	5.0	4.0	4.0	4.0	2.0	4.0
2011 4c - Variety of Techniques Used to Prepare Vegetables and Fruits for Breakfast, Lunch, and/or Snacks	4.7	5.0	5.0	5.0	5.0	5.0	3.0	5.0
2010 4d - Vegetables Integrated With Grain and/or Protein for Breakfast, Lunch, and/or Snacks	3.0	3.0	4.0	4.0	3.0	2.0	2.0	3.0
2011 4d - Vegetables Integrated With Grain and/or Protein for Breakfast, Lunch, and/or Snacks	3.9	3.0	4.0	4.0	5.0	3.0	4.0	4.0
2010 4e - Fresh vs. Canned Fruit for Breakfast, Lunch, and/or Snacks	4.3	5.0	5.0	3.0	5.0	4.0	4.0	4.0
2011 4e - Fresh vs. Canned Fruit for Breakfast, Lunch, and/or Snacks	4.4	5.0	5.0	3.0	5.0	4.0	5.0	4.0
2010 4f - Use of Canned Fruit for Breakfast, Lunch, and/or Snacks	?	?		4.0	?	?	?	?
2011 4f - Use of Canned Fruit for Breakfast, Lunch, and/or Snacks	?	?		5.0	?	?	?	?
2010 4g - Types of Vegetables: Canned, Fresh and Frozen Vegetables for Breakfast, Lunch, and/or Snacks	4.4	5.0	5.0	5.0	3.0	4.0	4.0	5.0
2011 4g - Types of Vegetables: Canned, Fresh and Frozen Vegetables for Breakfast, Lunch, and/or Snacks	4.6	5.0	5.0	4.0	5.0	5.0	3.0	5.0
2010 Average Score	4.0	4.5	4.8	4.7	3.8	3.8	3.5	4.0
2011 Average Score	4.3	4.5	4.7	4.8	4.8	4.0	3.9	4.5
Improvement/Decline	↑ 0.3	→ 0.0	↓ -0.1	↑ 0.2	↑ 0.9	↑ 0.3	↑ 0.4	↑ 0.5
Beverages								
2010 5a - Frequency of Juice Served	3.6	4.0	4.0	2.0	5.0	1.0	5.0	4.0
2011 5a - Frequency of Juice Served	3.3	4.0	2.0	2.0	5.0	1.0	5.0	4.0
2010 5b - Frequency and Availability of Water	?		5.0	5.0	?	?	?	?
2011 5b - Frequency and Availability of Water	?		5.0	5.0	5.0	?	?	?
2010 5c - Milk	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
2011 5c - Milk	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
2010 Average Score	4.3	4.5	4.7	4.0	5.0	3.0	5.0	4.5
2011 Average Score	4.1	4.5	4.0	4.0	5.0	3.0	5.0	4.5
Improvement/Decline	↓ -0.1	→ 0.0	↓ -0.7	→ 0.0	→ 0.0	→ 0.0	→ 0.0	→ 0.0
Fried Food								
6a - Deep Frying and Fried Foods	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
6a - Deep Frying and Fried Foods	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
2010 Average Score	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
2011 Average Score	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Improvement/Decline	→ 0.0	→ 0.0	→ 0.0	→ 0.0	→ 0.0	→ 0.0	→ 0.0	→ 0.0

- ✦ As shown in Table 7 above, menus from all 8 Centers showed gains on a wide variety of criteria associated with improved nutrition since HEHS was implemented. While progress has been made, there remains room for further improvement in all Centers.

- ✦ While there were differences in the extent and nature of improvement for each center, on average, overall improvements were found for:
 - Criteria 1: Variety, type and frequency of protein source:
 - In 6 out of 7 Centers, positive nutritional changes were found overall in variety, type, and frequency of protein sources, with one Center (representing two sites) showing no change overall. Although improvement was shown, the majority of Centers scored within the fair level in the frequency of use of plant based protein sources.
 - Criteria 2: Frequency and Variety of Whole Grains
 - On average, results show an increase in the frequency and variety of whole grains in menus, with one Center jumping from deficient to basic (a jump of two levels). Again, there remains much room for expanded growth in all Centers.
 - Criteria 3: Frequency and Quality of Pre-prepared Foods
 - On average, results show improvement in the decreased use of pre-prepared foods, as well as an increase in the quality of pre-prepared foods when they are used.
 - Criteria 4: Frequency, Type, and Preparation of Fruits and Vegetables
 - On average, results show improvement in the frequency, preparation and variety of fruits and vegetables served. Scores were generally strong initially, but nonetheless showed gains after implementing HEHS. (Results need to be interpreted with care in light of a number of scores that could not be determined due to incomplete descriptions of ingredients. See Footnote)
 - Criteria 5: Beverages served (frequency of juice and water served)
 - Results for the frequency of juice and water served are inconclusive due to limited information listed on the menus regarding juice and water provision.
 - Criteria 6: Frying and Fried Foods
 - Centers had exemplary pre and post scores, showing a lack of fried foods served or the use of frying as a preparation method.

- ✦ Kitchen staff reported a range of changes in their personal life as a result of their participation in HEHS such as trying a variety of healthy foods, checking food labels, eating smaller portions, eating and serving their families more whole grains and vegetables, drinking more water and exercising more often.¹⁸

¹⁸ See Appendix G and H for more findings related to changes in nutrition and health practices reported by kitchen staff.

Support, Obstacles, and Challenges

Kitchen Staff Perceptions of Support

Kitchen Staff focus group/interview responses suggest that HEHS was generally supported in the centers, with varying degrees of support from center to center. All indicated support from their administrators. Kitchen staff often singled out classroom staff as initially resistant to trying and to encouraging children to try new recipes. Kitchen staff reported that classroom staff were increasingly supportive of the program, interested in the new foods and recipes being served, and exhibiting improved attitudes and understanding. However, some kitchen staff described classroom staff support for the new menus as inconsistent. Kitchen staff from three of the Centers expressed frustration with the pace of teachers' support of the healthier meals being prepared using phrases such as "better but not supportive enough."

Obstacles and Challenges

➤ Perceived Obstacles, Challenges and Rewards in Implementing HEHS by Kitchen Staff

- ✦ Several kitchen staff noted the extra time it takes to make foods from scratch, to travel to select fresh produce and fresh herbs, and to do the research to revise recipes if they are not well received by children.
- ✦ Kitchen staff who worked in cramped space identified the small quarters as an obstacle or challenge in making hundreds of meals from scratch. Making individual pancakes from scratch with limited staff in the kitchen was also presented as a difficulty.
- ✦ Several explained that in order to make foods from scratch daily and buy fresh produce at least two or three times a week, they need to work longer hours than required by their position.
- ✦ Some kitchen staff members were disappointed and discouraged that they created their own menus in response to CAS trainings but did not see evidence of those changes in the new menus for their center due to a nutritionist who had not attended trainings overriding their work. In such cases, the kitchen staff found it an obstacle that nutritionists from the "central" office had not participated in trainings, and felt the obstacle could be overcome if nutritionists were required to attend trainings so "like the rest of the center, everyone could be on the same page."
- ✦ As noted in many sections of this report, kitchen staffs were very pleased to have participated. While their new responsibilities were (are) sometimes challenging, they saw them as challenges to be overcome with the new tools they had acquired and a sense of rich reward for their contribution towards improving the health of children, staff, and families of their community:
 - *I live in the community so I feel like a stakeholder in the health of the children at the center*
 - *It is more work....you can't do all this in 8 hoursbut I want to put the extra effort to make the new recipes and make more things from scratch...buy fresh produce... because I see how important it is ,it makes sense and we are doing it as a whole center – everyone is helping*

- *I feel so much better equipped...better prepared..we're not there yet.. we have a ways to improve..but we're heading in the right direction and we're not turning back...Sometimes other [kitchen] people get discouraged or say come on, let's just make the frozen stuff...because let's be honest...it's more work it's more work to turn hundreds of pancakes and make "fish sticks from scratch for hundreds of kids, figure out how to make couscous to taste good to 3, 4, and 5 year olds and those grown-ups. But I remind them, why we're doing this...because...and there's no turning back ...just pushing to learn morewe're not perfect but we keep trying our best because what we're doing is important.*
- *I'm using the computer to check new recipes, figure out what herbs go good with what...maybe add some onions and peppers to the couscous*

C5. PARENTS/GUARDIANS/FAMILIES

➤ Parent Reaction to HEHS Implementation and Trainings¹⁹

- ⊕ Need for HEHS: All parents who attended the focus groups (N=21) expressed the need for HEHS in their center and community and several commented that there is a need in other communities and the program should be expanded.
- ⊕ Reaction to trainings: The majority of parents who participated in the focus groups had not attended CMOM trainings. The majority of those who had attended trainings (N=10) expressed satisfaction with the trainings and felt they had learned new information.
 - *I am pleased with training; not everyone is privileged to know these things [healthy foods, portion size, hidden truths about foods, etc.] The parents here, we are not coming from a privileged position and if you're not privileged in a certain area you won't know this. How to eat healthy...They should know how to eat healthy. I feel privileged to have this new knowledge*
- ⊕ Several commented that the “plate of food” they had made during the CMOM parent/child training remained up on their refrigerator as a visual reminder, reference, and conversation piece. For many, the plate represented a new model of eating
 - *Now I've changed the whole [dinner] plate by incorporating fruits and vegetables. I didn't grow up with a plate like that. I grew up with a plate filled with rice and meat.*
- ⊕ The majority of parents found the trainings to have been hands-on, which they enjoyed: *"It made me feel like I was involved and a part of what was going on"*. A few other parents commented that the trainings were not hands-on enough and would have liked more practical cooking activities.
- ⊕ Parents liked being introduced to new foods and seeing their children eat new foods. A few however commented that they would have liked to have a greater variety of foods to try. The suggestion was also made to provide the workshops in Spanish. Some parents liked going to CMOM for trainings while others indicated they had not attended because the commute was too far and difficult to do on a Saturday- for some because they work and for others because it is difficult to arrange with all the different ages of their children along with the time and expense of getting the family to the museum. Based on that, several parents wondered if trainings could occur closer to where they live. Parents who had traveled to CMOM via a bus provided by their center were reportedly pleased with that arrangement and the enjoyed the group experience.
- ⊕ Several parents also commented on nutrition-related workshops they had attended at their centers given by family/social workers and/or kitchen staff. They generally spoke highly of these workshops and felt they had increased their understanding of healthy eating. They saw these workshops as part of a center-wide effort to increase healthy eating through changes in menus and nutrition related lessons their children were receiving, as well as changes in food served at parent meetings and planned family events. Parents were unclear as to the connection of the workshops to HEHS as family workers and kitchen staff at some centers had been providing nutrition related workshops to parents prior to HEHS. However, during focus groups, kitchen staff and family workers at

¹⁹ See Appendix D for more findings related to parent/guardian reactions to trainings.

some centers discussed the workshops they had led in their centers and indicated they had expanded on the content and strategies used in those workshops since participating in HEHS. A few parents mentioned the Cornell Cooperative healthy eating workshops they attended and were positive about those as well.

EMERGING OUTCOMES AND IMPACTS

Reported Changes in Parents/Families Practices

Table 8
Changes in Personal Nutrition/Wellness Practices Reported by Parents since HEHS Began
(N= 21)

Extent to which participants report the following personal changes since participating in HEHS activities or HEHS activities began:	Much More Frequently	More frequently	Slightly More frequently	Total Freq/ % Change	No change, remained the same		Less Often	
	Freq.	Freq	Freq		Freq	%	Freq	%
Learning and reading about nutrition and healthy living	8	9	2	19/90%	2	10%	-	-
Trying a variety of healthy foods	8	11	-	19/90%	2	10%	-	-
Cooking at home	-	11	3	14/67%	7*	33%	-	-
Exercising	2	6	2	10/48%	11	52%	-	-
Talking about healthy eating and exercise	2	8	7	17/81%	4	19%	-	-
Checking food labels on cans and packages	4	11	6	21/100%	-	0%	-	-
Shopping at green grocery or farmer's markets	2	3	5	10/48%	11	52%	-	-
Using correct portion size when I eat	9	6	4	19/90%	2	10%	-	-
Making meals with my family	-	3	2	5/24%	16*	76%	-	-
Drinking more water and less soda/sugary drinks	9	11	1	21/100%	-	0%	-	-
Avoiding fast food restaurants	2	13	5	20/95%	1	5%	-	-

- As shown in Table 8 above, since HEHS parents reported a range of positive healthy eating changes:
 - ⊕ 100% of parents reported they and their families:
 - are drinking more water and less soda and sugary drinks
 - checking food labels on cans and packages
 - ⊕ Ninety-five percent reported avoiding fast food restaurants
 - ⊕ Ninety-percent indicated they are learning and reading more about nutrition and healthy eating, and trying a variety of healthy foods
 - ⊕ More than three-quarters reported:
 - talking about healthy eating and exercise (81%)
 - *I learned that if you can't go to a gym, just walking is good exercise. If you don't have weights you can use canned foods for weights and just playing with your child and doing laundry, cleaning your house- that's all exercise.*
-Parent
 - cooking at home more (67%)
 - ⊕ Just under half reported changes related to shopping at green grocery or farmers' markets (often an obstacle of access and affordability) and exercising.

These reported results reflect the responses to an addendum question on changes in personal practices by parents who attended focus groups /interviews (N= 21). While 21 parents responded to this question, only 10 of the 21 parents who participated in the focus group /interview had attended HEHS trainings. However, all 12 parents are included here as they reported making changes due to any of the following: attending HEHS trainings, CMOM June 4th event , parent workshops given at their center, workshops they had attended previous to HEHS (i.e. Cornell Cooperative Extension), their children's influence as a result of instruction their children received in nutrition and wellness and conversations with their children about new foods and menus, changes in foods served at parent events and meetings, informal conversation, and a general sense of changes around healthier and wellness at their center. These children's influence is reflected in their comments below:

- *Instead of cookies for snack after school, now my son wants strawberries*
- *My son never knew hummus, but he tried it in school and he likes it.*
- *I'm more cautious and more aware; even though I knew it was important to have vegetable, protein and starch, I didn't pay attention*
- *Less chocolate milk, now my son asks for water. I dilute juice with water too.*
- *My children learned here and told me no more soda, now we drink water.*
- *Everyday my daughter comes home and she's always talking about fruits and vegetables and water. She tells me what's healthy for her teeth- no soda, no candy, broccoli, cauliflower, and yogurt.*

Many more examples accompanied responses to the addendum questions on changes in practices which may be found in Appendix H.

Support, Obstacles and Challenges

- ✦ Parents reported on personal obstacles and challenges to improving the nutritional quality of meals they serve and increasing access to healthy foods. Almost all parents alluded to the obstacles of access and many talked about the differences and sometimes tensions and opportunity of what they were brought up with and what they are “coming to understand”
- ✦ Obstacles primarily included:
 - Expense of fresh produce and healthy foods which many families feel is not within their budgets.
 - Difficulty of finding and affording farmers' markets
 - Finding a local supply for organic foods
 - Lack of fresh quality produce in the community.
- *I have four kids- It's very expensive. I need to learn about alternatives to rice and potatoes I can afford and my kids won't be hungry. It's very difficult to find healthy things and variety. I have to leave my neighborhood and travel far, which I can't do all the time so we buy in bulk. But you can't buy fruits and vegetables in bulk because they go bad.*
- *I'm trying to apply what I learned [from HEHS] in our daily life. Sometimes it is hard. The markets here don't have lots of fresh fruit and vegetables. When they do it is expensive and not very good quality. I have to go outside my community to get fruits and vegetables that are better quality and not so expensive. There are some stalls to buy fruits and vegetables but I have to get there before work and buy them in the morning because they close by the time I get home from work.*
- Dealing with extended families beliefs, customs, and traditions. Parents reported that some of the things they learned and are now incorporating into family meals and snacks have put them at odds with other family members, most notably, grandparents and husbands. Some parents report difficulty in serving brown rice or less rice, less and/or smaller portions of meat, children telling grandparents they can't have syrup on their waffles or other foods at extended family meals. One parent reported her family was eating fewer meals with extended family to avoid conflicts.
- *You tend to do what your parents gave you or what you wish they could give you. How do you tell your well-meaning family that the food they want to give your kids is not healthy? It's very hard and you have to stay at it constantly.*
- *It's a little hard with the [extended]family when we have meals together but I talk about it with my family and it's getting better.*
- *I would like a workshop on canning or preserving or freezing. If I learn these things it's a tradition I can give to my children. For Sunday brunch instead of butter and syrup on pancakes if I learn how to make preserves, it's a healthier option and a tradition I can hand down.*

D. A Look Inside the Classrooms: Observations of 22 Head Start Classrooms Instructional Time, Mealtimes, and Physical/Movement Activity Time

Observations of 22 classrooms , 2-3 classrooms in each of the 8 Centers, were conducted using the HEHS Classroom Observation Form (see Methodology section). Results of those observations are provided below. (Center environmental print scan and additional classroom observation narrative findings may be found in the Appendices E and F)

- Observations of classrooms suggest that “accountable talk” and activities related to nutrition, healthy eating, and to an extent, wellness concepts occurred in the majority of classrooms across the 8 centers.
 - ⊕ Classroom talk about nutrition and healthy eating was observed in all 22 of the observed classrooms, to varying degrees and at various times during the 3- hour classroom observations.
 - ⊕ A variety of instructional activities related to healthy eating (and its relation to wellness) were observed in all centers and in a majority of classrooms. Observed formal and informal activities included:
 - whole class read-alouds, hands-on projects, poems, songs/movement/dance, carpet-time discussion, small group interest area/choice time play, teachable moment conversations, mealtimes, physical/gross motor activities, and/or shared reading with a peer or adult
 - ⊕ On a scale of 1-5 with 1 rarely/not at all and 5 all/nearly all the time, overall rating for observed healthy eating instructional activities found that :
 - teachers involved all children most to all of the time (4.5) ;
 - Children showed high interest and were on-task nearly all the time during nutrition related activities (4.7).
 - Children demonstrated knowledge of nutrition- related questions or topic a majority of the time (3) to nearly all the time (5) often depending on the complexity of the content or concept.
 - Teachers were accurate most to nearly all the time (4.8) in discussing nutrition and wellness.
 - Most of the time (4) the teacher connected information on healthy eating to children’s prior knowledge and experiences.
 - On average, teachers expanded on children’s nutrition related comments or responses a majority of the time (3), but most or nearly all the time (4.7) during read- alouds and lunch time.
 - ⊕ The majority of children in 21 of the 22 classrooms appeared to be familiar and comfortable talking about healthy eating topics and were enthusiastic and generally accurate in providing names of a wide range of fruits and vegetables, being able to give examples of *Go* and *Whoa* foods (sometimes referred to as healthy and unhealthy foods), and sometimes (but not always) uncertain or as yet, inaccurate about identifying *Slow* foods (foods that are acceptably healthy only if they are not eaten often, such as pizza). For instance, in many classrooms when teachers asked for an example of a healthy food, children named pizza because, “My daddy gives it to me so it is good for me.” Teachers

seemed sensitive to responding in a way that respected that the food was provided by a parent and acknowledged that pizza is healthy, but only if not eaten too often and gently suggested that might be some new information to share with their fathers and families. (The most prominent topic in parent focus groups was parents' reports of their children teaching them about nutrition, refusing to eat foods prepared by them or grandparents that they had learned was unhealthy, asking for fruits and vegetables parents had never heard of, and telling their families about what they ate at school and the new foods they had tried.)

- ✦ Teachers used CMOM's theme of *Go, Slow, Whoa* to teach children concepts of healthy eating; healthy eating was taught using two contrasting levels of foods (healthy and unhealthy, or *Go* and *Whoa*) or three contrasting/categorization levels (healthy, moderately healthy, and unhealthy, or *Go, Slow, Whoa*).
- ✦ The vast majority of 3, 4, and 5 year old children seemed able to name foods (e.g., spinach) and categories(and subcategories) of foods (e.g., vegetables, green vegetables) that were healthy for them. Many children were able to produce names of unhealthy foods and many more were able to respond correctly when presented with the name of a food and asked if it was healthy or unhealthy. In every classroom there were children who were able to produce reasons why a food was unhealthy. However, the majority of children did not appear ready to articulate reasons on their own. Again though, when provided with a possible reason a food was unhealthy, for example, asked if foods with lots of sugar are good for you, many children knew such a characteristic of foods was unhealthy.
- ✦ Importance of Water. Children seemed very familiar with the importance of drinking water to maintain good health and hydration, and often offered comments to that effect. Anecdotal accounts and observations suggested that children were not only aware that water was healthy and soda in contrast was not, but aware of the reason soda was not healthy (e.g., too much sugar).

Mealtimes²⁰

- ✦ Mealtimes at the 8 Head Start Centers suggested an emerging picture of increased nutrition literacy and access to healthy foods since HEHS began:
 - During mealtimes (breakfast and/or lunch) in all 22 classrooms nutrition and healthy eating was a topic of conversation.

On the day of observations, in all classrooms children washed their hands prior to meals and there was a balance in all classrooms in which children participated in setting the tables and helping to distribute the food (when appropriate) with some but not constant supervision. Children sat together in small groups with a classroom staff member who, in almost all cases,

²⁰ In brief conversations during classroom observations many teachers noted they had taught formal nutrition lessons earlier in the year after attending HEHS trainings, and that for the most part what we were observing was the daily reinforcement of those previously taught concepts. Teachers for their part were observed to use numerous opportunities to reinforce concepts of healthy eating and such concepts were integrated during whole class, small group, and transition times. Mealtime appeared to serve as a time for daily reinforcement, expansion, and discussion about healthy eating and nutrition.

ate along with the children. Children helped themselves to food served family style or had food portioned out when the serving tray was too heavy or hot to pass.²¹

- ✦ The general climate surrounding mealtimes was friendly and relaxed, with moments of tension over a behavioral issue, misunderstanding, or children's impatience at waiting their turn for food to be passed to them. Overall, children appeared to enjoy mealtime and seemed satisfied and often enthusiastic about the foods they were served, with many serving bowls empty after second helpings. Some foods were more popular than others, and given the opportunity, children often seemed to eat the fruit before the main entrée.
- ✦ Children in classrooms were observed eating and generally enjoying a variety of foods, many from recipes kitchen staff learned at the CAS trainings, including: baked tilapia, couscous, turkey burritos, an assortment of fresh fruits, fresh spinach and tomato salad, homemade (center-made) muffins, roasted broccoli, egg salad, and whole wheat crackers. Grains were whole wheat and in place of white rice, brown rice was served. Water was provided at all meals, and children also drank 1% milk. Juice was rare and generally replaced by its actual fruit. In some centers, canned fruit was served, though menus indicated the canned fruit was in its own juice. (Several stakeholders commented that they have substantially lessened their reliance on canned foods, and hope to eventually eliminate them, if that is feasible budget-wise. In this regard, administrators noted the need for more information on using commodities versus payment in exchange for not using commodities.)

A Sketch of Mealtimes: Across sites and classrooms children and staff talked about what they were eating, the nutritional aspect of the different foods they were eating, which if any foods were new to them, where foods came from, which foods they ate at home, the importance of trying new foods, if it was a *Go, Slow, Whoa* food, discussing whether to combine the foods on their plate or to eat them separately, and suggestions for which foods to combine. Conversations also touched on whether they liked the food, how the food was prepared, and a host of topics related to the food they ate. The classroom staff member sitting at the table with the children most often responded positively to the foods being served and/or introduced. The vast majority of staff observed modeled and/or provided encouragement to eating the foods served. Teachers often used prior experience to remind a child who didn't want to try a new food that he or she had liked a different or differently prepared new food they had been reluctant to try in the past. In about half the classrooms, it appeared the policy was that everyone – adults and children-- needed to try a new food – even a pinpoint amount rather than not trying it at all. Sometimes this was more robustly implemented and sometimes a child's consistent refusal and clear upset about not wanting to try the food resulted in an end to the effort for that meal. Children also often encouraged each other to try a new food, sometimes more insistently than the adults.

²¹. In all except one classroom, children participated to varying extents in serving themselves. In that one classroom an adult portioned out the food in children's plates before they even sat down at the table even while the teacher at the other table encouraged children to help themselves. Note: Observations were conducted of classroom mealtime activities, however the role of HEHS in relation to children washing their hands or helping to set or serve themselves food is not clear.

Movement /Gross Motor Activity

A goal of HEHS is to improve overall health of children, families, and staff in Head Start. Towards that end, and in addition to learning about healthy eating, CMOM and to a lesser extent CAS trainings touched on physical activity and exercise as part of a holistic approach to improved health.

To get at their knowledge and practices regarding children's physical/movement activity, classroom staff were asked a series of survey questions concerning physical/movement activity:

- ⊕ Asked about the amount of time children should be getting physical/movement activity,
 - 52% believe children should get about one hour of physical/movement each day,
 - 28% think children should get more than one hour of physical activity/movement each day, and
 - 20% of respondents think children should get about 30- 40 minutes or less of physical activity/movement each day.
- ⊕ Asked if they have increased the amount of time each day children get physical/movement activity since participating in HEHS;
 - 56% of classroom staff respondents indicated they had increased physical activity for children in their classrooms. More specifically :
 - 41% reportedly increased the amount of time each day children get physical/movement activity by less than 30 minutes each day
 - 39% reportedly increased the amount of time by 30-45 minutes, and
 - 20% reportedly increased the amount of time by 1 hour or more each day
- ⊕ For those who did not increase the amount of time, nearly all 31% indicated they already provided sufficient time for daily physical/movement/activity.
- ⊕ Other reasons for not increasing physical /movement activity checked by a handful of respondents included: not having time in the curriculum for daily extended periods of physical /movement (9%), not having enough space for daily physical movement when it is cold or raining outside (7%), not having proper equipment for daily gross motor and other physical /movement activity (2%) , and needing more support by center administration to promote physical /movement activity in the program (2%).

Observations from the Field : Physical/Movement Activity

Observations of 22 classrooms found that the *average* time spent in physical /movement activity on the day of observation across all centers was 42 minutes. There were some centers in which children spent more than one hour in physical activity (outdoor and indoor playground, gym, neighborhood walk) and other centers in which children spent about 30 minutes in physical activity (outdoor playground). Six of the eight centers had adequate attached outdoor facilities, and all six used those facilities on the day of observation. One center without attached outdoor (or indoor) facilities walked to a nearby park for gross motor, and one center used an indoor space, transforming it into a temporary gym with gross motor equipment and/or having children go on neighborhood walks, in one case while taking photos of their neighborhood. On one very hot day one center set up sprinklers for children to play and cool off. Supervision of physical/movement activity was adequate at all centers on the day of observation.

All 22 classrooms included time for movement/dance in their classroom. Time spent in movement/dance varied by classroom on the day of observation, ranging from 3 minute short breaks or transitions, to 20 minute or longer movement time guided by exercise videos.

Conclusions and Recommendations

Conclusions

In its first year as a demonstration project, UWNYP/ACS HEHS Demonstration Project has made clear and measurable progress towards achieving its objectives of enhancing nutritional literacy and promoting healthy eating and wellness practices for Head Start staff, children, and families. Robust progress has been made in creating a sizeable cohort of trained Head Start staff knowledgeable and active in promoting and modeling healthy eating and wellness practices. Kitchen staff, classroom staff, family/social workers, parents and administrators from the eight demonstration centers were enthusiastic in their endorsement of HEHS, and more specifically in the team approach and engaging training methods through which HEHS was implemented. There was widespread approval of the CMOM and CAS trainings and widespread agreement on the effectiveness of trainings in improving knowledge, and promoting attitudes, beliefs, and practices that positively influence children's and their own health and wellbeing.

The positive reactions to creating and utilizing an inclusive rather than exclusive model of training cannot be underscored. Such a model served as a framework with all staff having access to relevant information delivered through methods that required hands-on, active, cooperative participation and practice. Research suggests that for learning to be internalized and applied to new situations outside the "lab" participants need to 1) actively engage with and attend to content, 2) move beyond their comfort zone and take risks 3) be faced with situations that safely allow them to question, detect, and reflect on their assumptions and misconceptions. Such a learning environment allows participants to construct new schema and deeper conceptual understandings.

From analysis of thirty-two focus groups and interviews across eight demonstration Centers, the trainings were relevant and effective in engaging participants and safe enough to support risk-taking that allowed them to question assumptions, rethink their behaviors, and broaden their understandings. All staff members were exposed to training that promoted active nutrition-learning and the demonstration of that learning in the use of new recipes and new or expanded healthy eating classroom lessons. Through HEHS, staff members increasingly recognized the significance of their role in influencing children's health and wellbeing. Centers, even those that had begun to institute healthy eating practices prior to HEHS, described a growing shift in norms from resistance to a collaborative team approach, to instilling and modeling healthy eating norms in their Centers. Centers though recognize they have much more to do in creating and sustaining healthy environment.

From a synthesis of respondents' comments, HEHS has in a sense created the valuable commodity of social capital through increased access to resources and information, often as pointed out by one parent, "privileged information." The team approach has helped bridge often weakly tied staff members through increased understanding of their interdependency in improving children's health. Cooperation and trust enhances each of their roles and increases their likelihood of success. The team model therefore not only serves as a structural backbone but as a motivational backbone and reinforced a culture of mutual support among colleagues' efforts towards healthy eating and exercise.

A look inside the classrooms revealed that nutrition has become a topic of conversation that appears to be integrated into daily conversation and activities, formally and informally. As teachers bring children's attention to sounds and rhymes as a normal course of the day to increase their phonological awareness, so too do many seem to bring up some facet of healthy eating to enhance children's understanding of nutrition and wellness.

Anecdotal accounts of benefits and positive changes in eating and wellness practices as a result of HEHS by kitchen staff, family/social workers, classroom teachers, parents and many administrators were so numerous they could have filled a book. Staff and parents were enthusiastic and proud of the changes they have made even while they report they need to still improve upon unhealthy eating and exercise habits. Respondents referred to HEHS as *life changing*. Across the board people wanted the site visitors to communicate the crucial importance of continuing trainings and/or technical assistance; that while there has been change there is much to go and change has often been gradual. For example, a parent meeting taking place in a classroom had fresh fruit but also croissants and the teacher had to awkwardly attempt to explain to children who questioned the health of the croissants that yes, the fruit was healthy but not the croissants.

The first year of implementation was not without its obstacles and challenges. All stakeholder groups offered recommendations and administrators, in particular, pointed to areas in need of improvement and strengthening. Those points are discussed in the body of this report and a listing of recommendations follows this conclusions section. One challenge that all stakeholders (including parents) agreed needs more attention is that of parent involvement and engagement. While many recognized obstacles parents experience, all agreed that if HEHS is to succeed, widespread and sustained parent support is critical. Recommendations were offered in this area as well. However strategies to engage and influence a wide spectrum of parents and ensure access and affordability to healthy foods and preparation should be accorded an important role in year two of HEHS. It is important as well to note that there were parents in every center who did become involved and are changing food purchasing and preparation while they work out ways to continue to honor cultural recipes and traditions as they recognize the critical role HEHS can play in improving everyone's health. As noted by a parent:

This type of training is important because it can break down cultural and social/economic barriers as it sends the message that all people have the right to have access to healthy foods.

Recommendations

Results of the first year of HEHS are reported at length in this report. However HEHS partners should undertake careful review, analysis, reflection, and action regarding recommendations for strengthening the growing, but often gradual progress reported by all centers. All centers expressed a sense of uncertainty, feeling they were left wondering *what's the next step*; how do they strengthen initial gains, what kinds of supports and workshops will be available if any, what steps do they need to take to develop partnerships and increase their access to networks of resources and how can they expand information sharing and collaborative learning. Kitchen staff also wondered if their contributions, skills, and efforts would be recognized professionally through a career ladder or certification. Such reflection and attention to participant feedback

will likely strengthen an already valuable and effective demonstration project.

A series of recommendations were offered by respondents and emerged from the focus groups, interviews, and surveys. The majority involved the provision of additional, repeated, or targeted workshops for staff and families, strategies, and projects to sustain professional relationships and a sense of being part of a community of learners, expanding the program, involving more parents, developing partnerships, increasing access to healthy foods, and ensuring adequate materials and resources.

- Additional Training and Technical Development Workshops. A number of workshops were suggested by respondents. Recommendations included content, methods, time, place, and purpose. (A full listing of recommendations is provided in Appendix G)

- Partnership
 - ⊕ Forming partnerships - More step by step, concrete how- to strategies in identifying and forming partnerships that are practical and of worth for each center (how do we get local bodegas to carry humus, how do we set up partnerships [with Whole Foods, Trader Joe's, farmers' markets, etc.]
 - ⊕ Develop a follow-up model that focuses on developing concrete goals and establishes strong "realistic" community partnerships during the initial phase of training and then return after a 3, 6, 9 month period for reassessment to eliminate the what's next feeling following the final training.
 - ⊕ Develop a community resources mapping that locates healthy food sources, exercise programs, yoga, indoor/outdoor swimming pools, baseball fields, etc.
 - ⊕ Get materials into pediatricians' offices (hidden truth about sugars)
 - ⊕ Increase accessibility to Green grocer carts from Mayor's office
 - ⊕ Work with medical colleges to include healthy eating in pediatric training and well baby visits

- Marketing HEHS
 - ⊕ Enlist hooks to get parents interested (Michelle Obama, celebrity)
 - ⊕ Conduct blind taste tests to help overcome assumption that healthy means awful tasting

- Continue to Build a Community of Learners
 - ⊕ Collaborative Projects related to healthy eating and wellness.
 - ⊕ Create healthy eating cookbook with inexpensive recipes
 - ⊕ Have parents bring in their family recipes to add to center recipes (made healthy)
 - ⊕ Book Clubs /Recipe Book Clubs. Select book on healthy eating or recipe book and meet regularly to discuss concepts, recipes, etc. Take turns being leader or have family worker or kitchen staff lead group.
 - ⊕ Use CDS , online videos, or films to learn about and discuss nutrition and wellness topics

- ⊕ Provide opportunities for staff from different centers to attend trainings together (in addition to just kitchen staff)
- Ongoing Information Sharing
 - ⊕ Develop recipe hot line (e.g., if brown rice isn't working, someone to call/contact to get ideas for how to make brown rice more appealing for that center, how to make the soup more substantial, etc.).
 - ⊕ Create information sharing platform for kitchen staff to share recipes, issues, ideas, stay in touch
 - ⊕ Share vendors – where do you get best produce for best price, etc.
 - ⊕ Create information sharing pipeline of best practices among all centers with input from all staff and families
- Create career ladder /certification for kitchen staff that recognizes good work, skill, knowledge, extra care taken to get best produce, etc. (it was noted that classroom staff have career ladders or pay raises based on courses taken, years of experience, etc.)
- Conduct kitchen- site visit by CAS to provide feedback on an ongoing, long term basis, as needed.
- Resources and Materials
 - ⊕ Create reference CDs (e.g., CAS recipes, use of herbs and spices)
 - ⊕ More classroom materials and resources related to healthy eating (books, songs, plastic foods, games, etc.)
 - ⊕ Ensure sufficient budget to purchase fresh produce/herbs on daily basis
 - ⊕ Create materials and handouts designed for family workers to use with families
 - ⊕ Expand HEHS to all Head Start Centers and extend HEHS to public schools to sustain healthy eating
- Ensure all directors attend opening meeting (for that project year) that explains purpose and goals of program activities so they can communicate that to all their staff.

Appendix

Appendix A: CAS and CMOM Trainings

Children's Aid Society (CAS) designed and conducted a total of four (4) hands-on trainings for kitchen staff from all the 8 participating centers. Administrators from all 8 sites were also invited and encouraged to attend to optimize the opportunity for administrators, who influence center policies, to actively train side by side with kitchen staff in learning about the provision and preparation of healthy meals and snacks. CAS trainings were designed to educate food service workers on the provision and preparation of healthy meals and snacks, introduce food service workers to a variety of potentially new healthy foods, increase the nutrition knowledge of food service workers, uncover and address attitudes and possible misconceptions related to or interfering with healthy eating and food preparation, principles of healthy menus, and recipes, practical application of making foods from scratch (rather than pre-prepared) in small kitchens serving lots of children, strategies for increasing the purchase of healthy foods, and provide practical, hands-on practice and support to create healthier menus at their centers featuring CAS developed -recipes which they learned and prepared at trainings. Assigned homework activities provided an opportunity to apply learning and gain individual feedback on improvements and areas in need of additional assistance. The training for food service workers began in the fall of 2010 and continued through early spring, 2011. Trainings were held in CAS locations in Northern Manhattan and the final training was held in Brooklyn. (See Appendix x for additional information on CAS trainings)

Children's Museum of Manhattan (CMOM) Trainings

Children's Museum of Manhattan (CMOM) designed and conducted a cycle of 4 trainings for each of the 8 demonstration sites, for a total of 32 trainings. The cycle of 4 trainings were as follows: Training 1: All staff training; Training 2: Educators; Training 3: Parents and Children; Training 4: All staff. In addition, CMOM invited all Head Start families to a culminating health fair event in early June, 2011. Documents from CMOM indicate that a total of 163 families attended the event held at the Children's Museum of Manhattan.

The majority of trainings were held at Children's Museum of Manhattan, located on the upper west side of Manhattan. Educator trainings (Training 2) were conducted at each of the four centers. Parent and Child training (Training 3) was also held at CMOM. (Due to low turnout at one parent/child training, CMOM offered to provide parent/child training at the center). (To offset the expense of families traveling to CMOM for training, CMOM provided a certain number of metro cards to families. One center hired a bus to take families to the training which resulted in a high turnout. One center chose to invite 12 parents from one classroom in which there was evidence of a high implementation of healthy eating activities, and all 12 parents/families attended.) All families were invited to use the full museum following the training at no expense. In focus groups and in an observation of Training 3, several parents commented that this was the first time they had taken their child to visit the museum.

**Appendix B:
Attendance at 4 CMOM Trainings by Demonstration, Site, and by Position***

<u>Position</u>	Site 1				Site 2				Site 3				Site 4				Site 5				Site 6				Site 7				Site 8			
	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4
Teachers	11	15	-	10	21	22		23	25	21	-	20	15	15	-	14	18	19	-	25	27	27	-	20	17	15	-	14	10	10	-	8
Total	36				66				66				44				62				74				46				28			
Kitchen/Food Service Staff	3	2	-	3	2	-	-	2	5	-	-	-	-	-	-	2	1	-	-	3	2	-	-	2	3	2	-	3	2	2	-	2
Total	8				4				5				2				4				4				8				6			
Program Administrators	2	-	1	2	3	7	-	1	2	-	-	-	2	-	-	3	1	-	-	1	1	-	-	1	1	-	-	3	-	-	-	2
Total	5				11				4				7				2				2				4				2			
Social workers	5	-	-	4	6	-	-	6	11	-	-	8	3	3	-	4	1	-	-	5	5	-	-	9	3	-	-	9	2	-	-	5
Totals	9				12				19				10				6				14				12				7			
Support Staff (i.e., Custodian, Records Clerk, Bookkeeper)	4	4	-	3	-	-	-	-	5	-	-	-	-	-	-	1	2	1	-	4	4	-	-	6	4	-	-	4	2	-	-	2
Total	11				0				5				1				7				10				4				4			
Parents	-	-	13	-	-	-	-	14	-	-	-	15	-	-	-	19	-	-	-	7	-	-	-	15	-	-	-	4	-	-	-	2
Total	13				14				15				19				7				15				4				2			
Children	-	-	15	-	-	-	-	23	-	-	-	11	-	-	-	32	-	-	-	9	-	-	-	14	-	-	-	7	-	-	-	4
Total	15				23				11				32				9				14				7				4			

* T3 (third training) was for families

Appendix C: Attendance at CAS Trainings

Appendix C

Attendance of Kitchen Staff and Administrators at 4 CAS Trainings by Demonstration Site and Training

Position	Site 1				Site 2				Site 3				Site 4				Site 5				Site 6				Site 7 and Site 8 (shared Administrators)							
	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4
Kitchen/ Food Service Staff	2	1	1	1	2	1	1	0	2	3	3	0	3	3	3	3	2	2	2	2	4	4	4	3	3	3	3	3	2	3	2	1
Total	5				4				8				12				8				15				20							
Program Admin.	1	1	1	1	2	1	2	0	1	0	0	0	1	1	0	0	1	0	0	0	1	1	1	0	0	0	0	0	1	1	1	0
Total Admin.	4				5				1				2				1				3				3							
Total # of Attendees by site	9				9				9				14				9				18				23							
Total # of Attendees	91 attendees																															

Appendix C

Frequency of the number of kitchen staff from each center attending each training

Number of Kitchen Staff from each center attending training	Frequency of that number of kitchen staff from each center attending
0	2
1	6
2	9
3	12 (mode)
4	3

Appendix D

Aggregated Reactions to Trainings by Kitchen Staff, Family/Social workers and Families

- Kitchen staff, family/social workers, and parents who had participated in trainings expressed high levels of satisfaction with the value, use, worth, quality, methods, and applicability of the implementation model and trainings.

Appendix Table D below shows results of an “addendum question” (described in methodology section) asked of kitchen staff, family/social workers, and parents who had attended trainings during focus groups/interviews in order to obtain overall reactions to training by different stakeholder groups within the same trained cohort.²²

Appendix Table D
Aggregated Responses to HEHS Trainings Overall by kitchen staff, family/social workers, and parents who had attended trainings (N=49)

Extent to which attendees agree or disagree with the following statements about the trainings overall	Strongly Agree		Agree		Uncertain		Disagree		Strongly Disagree	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Instructor(s) well organized.	40	82%	7	14%	-	-	2	4%	-	-
Instructor(s) made good use of the time allotted	38	78%	8	16%	-	-	3	6%	-	-
Instructor(s) knowledgeable about the topic	45	90%	4	10%	-	-	-	-	-	-
Teaching methods effective in helping me learn	43	84%	5	14%	1	2%	-	-	-	-
Instructors encouraged questions and discussion	38	78%	9	18%	-	-	2	4%	-	-
Materials that were provided have been useful for my work.	37	76%	10	20%	-	-	2	4%	-	-
I understood the nutrition and health concepts that were presented	40	82%	8	16%	-	-	1	2%	-	-
Trainings/instructors improved my ability to inform other people about nutrition and health	45	92%	4	8%	-	-	-	-	-	-
Instructor(s) were enthusiastic	49	100%	-	-	-	-	-	-	-	-
I would attend other sessions offered by these instructor(s)	48	98%	1	2%	-	-	-	-	-	-

²² Addendum questions used during focus groups/interviews were the same items asked in two questions on the classroom staff survey; one about training overall and one about personal changes since HEHS began.

As shown in Appendix Table D ,

- ⊕ 100% of kitchen staff, family/social workers, and parents ²³ who responded to the addendum questions during focus groups/interviews across the 8 sites (N= 49) reported:
 - Instructors were enthusiastic (100% strongly agree)
 - Trainings/instructors improved their ability to inform other people about nutrition and health (92% strongly agree, 8% agree)
 - Instructors were knowledgeable about nutrition (90% strongly agree, 10% agree)
 - They would attend other sessions by the instructors (98% strongly agree, 2% agree)
- ⊕ Close to 100% strongly agreed or agreed that :
 - The teaching methods were effective in helping them learn about nutrition and health (98%: 84% strongly agree; 14% agree)
 - Understood the nutrition and health concepts that were presented (98%: 84%; 14%) and thereby helped expand their knowledge of nutrition and health
 - Instructors encouraged questions and discussion (96%: 78%; 18%)
 - Instructors were well organized (96%; 82%; 14%)
 - Materials that were provided have been useful for their work (76% strongly agree, 20% agree)
- ⊕ 94% strongly agreed or agreed that instructors made good use of time allotted (78%, 16%).

²³ For Addendum 1 results: N= 49; 23 family/social workers, 16 kitchen workers, and 10 parents. Administrators (directors and educational directors) at 6 of the 8 sites were asked Addendum questions. Due to not having a complete set of administrator addendum responses from all 8 sites, administrators' responses were not included in Table 3. Their reactions to training are presented in narrative form in the sections that follow.

Appendix E: A Brief Environmental Print Scan of 8 HEHS Demonstration Head Start Centers

Environmental Nutrition/Wellness Print Scan of Center

The nature and amount of environmental print related to nutrition and wellness differed by classroom and center, though all classrooms had some environmental print that could be connected to healthy eating. The extent differed, with one center having traced outlines of children with the food and organ it benefits prominently displayed, another with examples of *Go, Slow, Whoa* foods in the dramatic play/kitchen area. Still others had photographs of fruits and vegetables, or a recipe for a healthy food. There were also plastic fruits and vegetables and a variety of nutrition –related books. While books and posters rotate, it is noted that in one classroom there were no books on nutrition found.

- In 7 out of the 8 entry areas of centers environmental print related to nutrition, health, and wellness was found in the form of displays (e.g., Food Pyramid) , posters,(Exercise is Healthy) pamphlets (e.g., WIC) , Center newsletters, and children’s work (e.g., Planting is Fun) . In the majority of centers, the environmental print was in English and Spanish. Posters and bulletins provided information on healthy eating, portion size, exercise, food stamps, WIC, healthy milestones for children, health screenings, and in fewer cases community events, resources available in the community. In most centers menus were posted in areas somewhat accessible to parents. In at least one center the certificate of completion of UWNYS/ACS HEHS was posted by the front door. CMOM posters on Hidden Truths of Food were also displayed at a few centers. At least one center noted they had a poster highlighting CMOM’s *Go, Slow, Whoa* approach but had taken it down when they began a new theme. Fire restrictions limiting posting were also noted.
- Far fewer posters or announcements were found of center and community based nutrition and healthy eating events, though they were examples such as Male Involvement Cookout, Children’s Ball (for which children chose the healthy menu), and the June event at Children’s Museum, BMS Summer Fest, and a 3rd Annual Children’s festival.

Environmental Scan Inside Observed Classrooms

- All 22 classrooms and/or classroom areas displayed posters related to healthy eating/wellness, though their nature, number, and use varied. In nearly all classrooms there were pictures of fruits and vegetables, sometimes with their corresponding first letters (e.g., Apple and A).
- Some classrooms and hallways just outside classrooms displayed children’s work related to healthy eating-- evidence of nutrition lessons and activities done prior to the site visits. For example, prominently displayed were outlines of children’s bodies with foods and parts of the body the food benefited adorning several walls as did charts categorizing and tallying the children’s favorite fruits and vegetables, or favorite seed (pumpkin, sunflower). In one dramatic play center (kitchen area) of a classroom, a small chart displayed pictures of foods which had been cut out of magazines by children, with each food labeled as healthy or unhealthy.

- Fairly non routine plastic fruits like asparagus, eggplant, melon, artichokes, and kiwi were included in the plastic foods collection in the dramatic play area of several classrooms, along with empty containers of hummus, cans of beans, whole wheat crackers, restaurant menus, and food coupons. Children spoke with familiarity about these and other fruits, vegetables, and foods as they used the foods in their play. There were recipes posted in a few classrooms of dishes students had made such as a fruit salad recipe in one classroom and green eggs and ham in another. Some classes had planted vegetable or beans, and one classroom was experimenting with planting seeds of some of the foods they ate. Several teachers had noted they had done planting with children but the plants had been taken home. A few centers also had center gardens but most indicated they did not have the space or had given up on a garden due to lack of time or staff interest; one center reported they were waiting to hear about the availability of a plot of land to start a center /community garden. Classrooms also had displays of teeth brushing, hand washing, first aid, and menus. One classroom had a model of a place setting hung in poster form to serve as a reminder if children needed it while helping to set the tables.
- All 22 classrooms had children's books on topics related to nutrition, health, and/or wellness, with most titles related to health and safety and fewer directly related to nutrition. On average, on the day of observation, the majority of classrooms had at least 5 books on nutrition, with three classrooms found to have 3 books, and in two classrooms it was difficult to find any titles directly related to nutrition/healthy eating. Most of the nutrition related books were found in the central classroom library, with a few classrooms having nutrition related books available in interest areas such as dramatic play and blocks. Books are rotated so the extent of titles is unclear and may have been higher during the period that nutrition lessons were taught. Several administrators and teachers noted that it would be helpful to have more titles related to nutrition and healthy eating for children to read in class, or borrow or be given for reading at home.

Appendix F: Observations from the Field: An Impromptu Lesson

Site visits occurred in early to late June, after most centers had completed their final trainings. Teachers had not necessarily anticipated or planned to do lessons on nutrition with their students on the day of observations. Once observers arrived in their classrooms several teachers generously chose to pivot on their day's plans by revising an activity or substituting a read aloud book for one that was more connected to generating a conversation about healthy and unhealthy foods. The ease with which this pivoting was done, the facility of many of the teachers to seamlessly bring up topics or activities related to healthy eating, and the children's reactions to these topics was noteworthy and seemed to provide evidence that while the activity or conversation was often done, so to speak, for the site visitor, these were familiar topics of instructional activities and classroom talk in a vast majority of classrooms.

The teacher gathered children on the carpet for an impromptu lesson (prompted by the site visit). She began by reminding children of the picnic they were planning asking for ideas of what foods they should bring. As children contributed suggestions, she also asked if the food was healthy or not healthy. Children's responses suggested that conversations about healthy or unhealthy foods were a familiar topic of conversation. The teacher also asked for examples of "go" foods to which hands shot up to offer responses. Carrots, tomatoes, "salad", avocados, kiwi, melon, water, strawberries, broccoli, banana... the naming of healthy foods, notably fruits and vegetables, continued for some time. What about ice cream the teacher asked. That took a little more time and answered varied. Giving children a few prompts, a child then explained, "You can have it sometimes but not always".

After reviewing foods selected for a picnic, and naming a series of fruits and vegetables, the teacher led the class in a rousing rendition of Grow, Peel, Eat the Banana and accompanying movements, with additional stanzas revised slightly to accommodate corn, potatoes, and watermelon. Watermelon was tricky and the teacher took time to ask what has to be done to watermelon to be able to eat it explaining we don't peel it, and scaffolded the children to arrive at cut, which they then sang as the last refrain.

Appendix G: Aggregated Addendum Findings of Reported Changes in Kitchen Staff, Family Workers, and Administrators

Appendix Table G
Changes in Personal Nutrition/Wellness Practices Reported by Kitchen Staff, Family Workers, and Administrators since HEHS Began (N= 58)

Extent to which participants report the following personal changes since participating in HEHS activities or HEHS activities began:	Much More Frequently		More frequently		Slightly More frequently		Total	No change, remained the same		Less Often	
	Freq.	%	Freq	%	Freq	%		Freq	%	Freq	%
Learning and reading about nutrition and healthy living	26	45%	21	36%	8	14%	95%	3	5%	-	-
Trying a variety of healthy foods	35	61%	18	31%	3	5%	97%	2*	3%	-	-
Cooking at home	1	2%	11	19%	9	16%	37%	36*	63%	-	-
Exercising	9	15.5%	8	14%	22	38%	67%	19*	33%	-	-
Talking about healthy eating and exercise	30	52%	17	28%	11	19%	98%	1	2%	-	-
Checking food labels on cans and packages	41	71%	7	12%	2	3%	86%	8*	14%	-	-
Shopping at green grocery or farmer's markets	12	21%	15	26%	11	19%	56%	20*	34%	-	-
Using correct portion size when I eat	24	41%	8	13%	10	17%	72%	16	28%	-	-
Making meals with my family	8	14%	18	31%	7	12%	57%	25*	43%	-	-
Drinking more water and less soda/sugary drinks	36	62%	12	20%	5	9%	91%	5*	9%	-	-
Avoiding fast food restaurants	10	17%	19	33%	9	16%	56%	20*	34%	-	-

Appendix Table G above shows results for frequency of personal changes reported by kitchen staff, social workers, and most administrators combined since HEHS was implemented in their center.²⁴

➤ A range of changes in personal practices were also reported by a wide percentage of kitchen staff, family workers, and administrators. (See Table 5) Personal changes reported to be made much more or more frequently by eighty percent or more of addendum respondents (N = 58)²⁵ since

²⁴ The corresponding Classroom Staff survey question asked about changes since participating in HEHS trainings. The question was broadened during focus groups to ask about possible personal changes since their center began participating in HEHS as many focus group parents had not participated in trainings from CMOM but reported changes due to center-led workshops they had attended (led by kitchen staff and /or family workers) and/or changes their children had initiated based on their children learning about healthy eating and being exposed to new foods. (Please see email note relating to this footnote.)

²⁵ N = 58 includes 32 family workers, 16 kitchen workers, 10 administrators from 6 centers. Parent responses are reported separately from that of Center staff (See Parent Findings section in report)

HEHS was implemented in their center include: (in order of highest percentage reporting much more frequently)

- ✦ Checking food labels on cans and packages (93%: 71% much more frequently; 12% more frequently)
 - ✦ Drinking more water and less soda and sugary drinks (82%: 62% much more frequently; 20% more frequently)
 - ✦ Trying a variety of healthy foods (92%: 61% much more frequently; 31% more frequently)
 - ✦ Talking about healthy eating and exercise (80%: 52% much more frequently; 28% more frequently)
 - ✦ Learning and reading about nutrition and healthy living (81%: 45% much more frequently ; 36% more frequently)
- While improvements were reported by a majority of respondents, the practices that remain more challenging to change much or more frequently included:
- ✦ Using correct portion size when I eat (54%: 41% much more frequently; 13% more frequently)
 - ✦ Avoiding fast food restaurants (50%: 17% much more frequently; 33% more frequently)
 - ✦ Exercising, avoiding fast food restaurants more frequently, and using correct portion sizes more frequently.
- Less change was reported for cooking at home (63% no change) and making more meals with my family (43% no change). However, during focus groups and interviews, respondents were also asked about possible changes in personal nutrition and wellness related practices since participating in HEHS. From focus groups and interviews it was learned that a number of respondents (see next section) reported that cooking at home and cooking with family had not changed as they had been doing this already, especially the kitchens staff. For many though, what had changed was what they were cooking at home with their families. Where prior to HEHS they may have been preparing white rice for their families for example, now they were preparing and serving brown rice in its place.

Appendix H: Additional responses to addendum question – changes in practices

Many more examples accompanied responses to the addendum questions on changes in practices. Below are a sampling heard often from family workers, kitchen staff, parents, and administrators alike, in addition to those noted throughout the report.

- *It's changed my life. I may not look it but I've lost 25 pounds. I walk from my home in the Bronx across the bridge here to the center [in Manhattan]. I am diabetic. I've stopped drinking soda, even diet soda and now I only drink water and seltzer. We have a lunch club and we take turns making healthy foods for each other at lunch because there are not places around here to get healthy food, so now we make it ourselves and that keeps us all eating healthier, together. You should taste some of the delicious recipes... Marinating zucchini in Italian dressing. Me eating zucchini- no oil, not fried, zucchini? Sometimes I can't believe the changes I've made myself.*
- *It's changed the way I buy foods, now I buy only low .*
- *I stopped my McDonald's intake- after that [CMOM] demonstration on the amount of fat in McDonald's. That demonstration would be great to show parents.*
- *I've tried and continue to eat new foods like cucumbers and cream cheese, sunflower butter, seltzer and lime.*
- *I used to drink Pepsi but now I drink ginger ale and water – I know it's still soda but I'm making progress.*
- *I've shared recipes with my mom – we love the cauliflower and mashed potatoes.*
- *I went to Whole Foods for the first time. I bought chips, but they were healthy chips- banana chips.*
- *I'm spending time with my family teaching my own kids how to cook healthy and giving them tasks like cutting up vegetables.*
- *We now have raw vegetables and fruits, slushies and yogurt for snacks instead of cookies at home.*
- *My son asks for kiwi. I never heard of kiwi before. Now I buy kiwi and I serve more fruits and vegetables to my whole family. I've cut down on sugary snacks and soda.*
- *My daughter says she won't eat syrup on her pancakes anymore. She says mommy that's a Whoa food. So now I put fruit like bananas on pancakes.*
- *I serve only brown rice to my family now....my husband was not happy but that's it, it's what I serve, so he's getting used to it and complaining less.*
- *I'm serving smaller portions of meat and filling us the plate with salad and vegetables and whole grains. Everyone was unhappy- my adult children too - and complained. For about two weeks they kept saying they were still hungry. I said you'll get used to it. They're still not so happy but I know I'm doing the right thing for them.*
- *I'm trying to eat less fast food. I'm trying to go to McDonald's less often. I'm trying. The staff here are on top of me now when I eat that stuff [fast food].*
- *Instead of fried chicken now I bake the chicken. Instead of fried chicken I also make frozen vegetables and fish.*
- *I never realized it was okay to have fruit with dinner or that even with dinner you can drink water or seltzer, so now that's what I do.*

- *I learned how I influence my son's eating – I know now he thinks, if it's important to mommy [to eat healthy], it's important to me.*
- *Emphasis on not to overindulge using go, slow, Whoa as a guide. Now I ask my son, "Which is Go, Slow, and Whoa?"*
- *Now I've changed the whole [dinner] plate by incorporating fruits and vegetables. I didn't grow up with a plate like that. I grew up with a plate filled with rice and meat.*

Center Changes

Focus group/ interview respondents listed many changes they had noticed in their centers since HEHS began. Below is a sample listing of noted changes in foods being served at their centers:

- ✦ Kitchen staff are preparing a variety of new recipes from the CAS trainings.
- ✦ Using whole grains is more consistent and frequent
- ✦ More wild and brown rice instead of white rice
- ✦ Less meat, more fish
- ✦ Very little to no canned fruits
- ✦ Much more fresh vegetables and fruits
- ✦ Use of a greater variety of seasonings
- ✦ More plant based protein dishes
- ✦ Limited to no use of commodities as directors recently learned that the center can receive cash in replacement of canned food commodities.
- ✦ Making more homemade foods and less pre-prepared foods
- ✦ No longer use white bread but only whole wheat.
- ✦ Food is more healthy here now, all the time- more fruits and vegetables
- ✦ The workshops taught us that our role is to provide a variety of "colorful" foods mostly made up of fruits and vegetables"
- ✦ Healthier foods at Family events- At this year's block party the center is only serving veggie and soy burgers and hot dogs. To diminish resistance the kitchen will provide tasting for staff before the party to get them accustomed to the new foods- as was done at HEHS trainings).

Respondents also listed new and/or expanded activities that promote healthy eating and wellness activities at their centers:

- ✦ Kitchen staff and classroom staff are introducing healthy fruits and vegetables in the classroom
- ✦ More nutrition workshops and taste testing of healthy recipes for parents by kitchen staff and family workers
- ✦ Kitchen staff conducting food preparation lessons in classrooms.
- ✦ Teachers are more willing to cook in the classroom and they understand the importance of demonstrating healthy foods.

- ✦ Kitchen staff are interested in feedback from classroom staff, parents, and children on the new recipes.
- ✦ Teachers are using some of the lesson plans they developed during one of the trainings as well as songs and movement activities they learned.
- ✦ Staff, parents, and children have shown interest and appreciation to kitchen staff for many of the new recipes they have made.
- ✦ Due to staff and parents asking kitchen staff for recipes, in at least two centers, the recipes are now published in the center newsletter, or shared informally by kitchen staff.
- ✦ Children are sharing with their parents the new foods they are eating at their center and requesting these foods at home. As a result of their children's influence, and sometimes refusal to eat foods they have learned are unhealthy, a general sense of changes in center menus and changes in what is served at family events and meetings, parents are buying more fruits and vegetables, less soda, giving their children water, asking more questions about how to prepare healthier foods, and making efforts to prepare foods in healthier ways.

Appendix I:

Recommendations from Administrator interviews, Kitchen staff, Parents/Guardian, and Family/Social Worker focus groups for future workshops (content, place, time, targeted participants)

- ✦ More and ongoing workshops as participants noted you can only catch so much the first time you hear new information so they would like to attend more workshops that are of same tone, fun, informative, social, lively
- ✦ Refresher workshops
- ✦ Train the trainer methods
- ✦ More parent workshops, specifically hands-on cooking workshops for parents, and/or with children, and/or with extended families. Extended families were mentioned as many people noted the influence the eating and cooking habits of extended family have on children, which they pointed out was often unhealthy. Ensure parent workshops are done earlier in year to get buy-in earlier in year.
- ✦ Continue team approach trainings that involve all staff so everyone is on same page
- ✦ Have other staff along with kitchen staff attend CAS-type hands on cooking trainings
- ✦ Workshops on use of spices (so staff are less dependent on given recipes)
- ✦ Workshops on substitutes for cultural foods
- ✦ Workshops closer to centers as travel to CMOM was identified as obstacle for families.
- ✦ Workshops on eating nutritionally in shelters, how to manage in transient housing
- ✦ Workshop on how to find and afford healthy foods in your neighborhood
- ✦ Teach about Bento box to help with portion control
- ✦ Workshop on how to help your child if she/he is overweight, or has asthma, etc.
- ✦ Workshop on ways to extend the life of fresh foods to allow for bulk buying of fresh produce. (e.g. canning, preserving, freezing)
- ✦ Workshop on "commodities" so directors are better informed about commodities vs. additional monies in place of commodities
- ✦ Workshops designed just for social worker/family workers (so they can integrate what they are doing with healthy eating seamlessly, during applications, review of medical records, etc.)
- ✦ Workshops for kitchen staff on knife skills (homemade foods require greater skills and ways of being efficient). Parents and other staff should also be invited.
- ✦ Workshop on how to be efficient in making homemade foods – time spent flipping hundreds of homemade pancakes for kitchen staff and others
- ✦ Workshops for kitchen staff that go deeper into nutrition, more on gluten free recipes
- ✦ Workshops for teachers that provide more in-depth information on nutrition (not enough to say mushrooms help with headaches- want to know why mushrooms help with headaches)

- ✦ Trainings need to focus on incorporating nutrition/wellness lessons into science, math, and social studies and less ‘music and art’
- ✦ Have goal oriented workshops. For example, assignment that takes a 10 minute activity offered at the workshop and expands it into a weekly lesson plan.
- ✦ Workshop on how to cook quick, nutritious meals for working parents so they avoid fast food restaurants
- ✦ Use more demonstrations in workshops like the sugar demonstration
- ✦ Educate volunteers in classrooms about healthy eating
- ✦ Help directors figure out how to have custodians attend trainings (staff development day is when staff went for training but that’s when the center is cleaned – perhaps custodians from one center to go to trainings for another center)
- ✦ Inform and show directors all training agendas and materials prior to trainings so directors can provide input into what is realistic and feasible.
- ✦ Differentiate trainings based on the skill and content knowledge of participants and/or centers; ensure workshops are responsive to the specific needs of the center.
- ✦ Reorganize trainings to work on personal goals in earlier trainings
- ✦ For kitchen staff in centers with menu planning and food ordering done by a central office outside their center, all central office staff (nutritionists) involved in menu planning be included in the trainings so they are working collaboratively and not at cross purposes.
- ✦ Use menu as a workshop- use the center menus as a guide at home
- ✦ Ensure content and message is aligned between those providing trainings. One center felt there were some mixed messages about nutrition at CMOM and CAS trainings.