MARATHON KIDS: PROMOTING PHYSICAL ACTIVITY AND HEALTHY EATING IN ELEMENTARY SCHOOL CHILDREN

8/31/2011

Evaluation of Enhanced Fruit & Vegetable Strategies in Central Texas and Implementation of Marathon Kids in California and Illinois

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Marathon Kids: Promoting physical activity and healthy eating in elementary school children

EXECUTIVE SUMMARY

BACKGROUND AND PROJECT AIMS

Marathon Kids® is a free, school and community-based program that promotes running and walking and fruit and vegetable (FV) consumption in children in grades K through 5 and their families. In 2010-2011, The Michael & Susan Dell Center for Healthy Living at the University of Texas School of Public Health conducted an evaluation of the Marathon Kids® (MK) program under a subcontract with MK and funding from the Michael & Susan Dell Foundation. The evaluation aims were to: 1.) assess the effect of enhanced FV promotion strategies on children's FV consumption; and 2.) evaluate the implementation of MK in two marquee cities: Los Angeles, California, and Chicago, Illinois.

METHODS

For evaluation aim 1, a comparison group, pretest-posttest design was employed to assess children's (n=484) previous day and school and home FV consumption among three MK study conditions at four time points during the school year. The three study conditions included a "regular & customary" MK condition (n=7 schools), an "enhanced" MK condition (n=5 schools) consisting of a revised FV tracking log, fun food facts of the day, group tracking, and monthly emails, and a "Sprouting Healthy Marathon Kids" (SHMK) condition (n=5 schools), which included all enhanced strategies plus FV promotion activities such as school/community gardens, farmer's visits, and taste-testing in collaboration with the Austin-based nonprofit Sustainable Foods Center. A key dimension of the SHMK was community organizing of parents, faculty, and community leaders to form a wellness team and to implement actions from a menu of activities. Repeated measures regression methods assessed changes in FV between baseline and posttest and study groups. For aim 2, an online survey was conducted with a representative sample of MK coordinators from schools in Los Angeles Unified School District (LAUSD) (n= 71) and Chicago Public School (CPS) (n=25) as well as in-depth interviews with stakeholders (n=25).

FINDINGS

Students attending SHMK schools consumed significantly more FV between baseline (September/October '10) and wave 3 (February '11) compared to students in the regular MK condition, with a difference of .54 times (SE: 0.27) more FV (p=.04), which equates to roughly ¼ cup more of FV per day. Students in the enhanced school condition consumed significantly more FV at school (estimate: 0.25 times, SE: 0.12, p=.03). No differences in children's FV at home were observed for any of the conditions. However, students in all three conditions reported significant increases in FV as a snack at wave 3 ($p \leq .02$). FV consumption returned to baseline levels at wave 4 (May '11), approximately two months post-end of program. Findings from the online survey and in-depth interviews indicated a high level of support and satisfaction with the MK program and a generally high level of implementation of MK activities in LAUSD and CPS.

CONCLUSION

Findings underscore the added benefit of increased school/community organizing for the promotion of children's FV. Modest yet significant increases in FV snack consumption across conditions as well as increased FV at lunch in the enhanced condition provide general support for MK's FV tracking log approach. Findings from LAUSD and CPS indicate that MK is strongly embraced by schools outside of Texas and suggest increased opportunities for children's physical activity during the school day. Opportunities for enhancing specific aspects of the program, such as parent outreach and partnership with nutrition-oriented organizations, are discussed.

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Introduction

Fruit and vegetable consumption is associated with a reduced risk of stroke and possibly other cardiovascular disease, a reduced risk of site-specific cancers, and a reduced risk of type 2 diabetes (USDA, 2008). Despite the numerous health benefits, national prevalence estimates indicate that 74.1% of children between the ages of 6 to 11 years do not meet the Dietary Guidelines for Americans on fruit consumption, and 83.8% do not meet the guidelines for vegetable consumption (Lorson, Melgar-Quinonez & Taylor, 2009). The low consumption of fruit and vegetables is similar for U.S. high school students, of whom 78.6% do not consume fruits and vegetables 5 or more times per day (CDC, 2007). Clearly, more efforts are needed to promote fruit and vegetable consumption in U.S. children.

Marathon Kids® is a free, school and community-based program that promotes running and walking and fruit and vegetable consumption in children in grades K through 5 and their families. Founded in 1996 in Austin, Texas, Marathon Kids operates in 8 cities throughout the United States (Austin, Baltimore, Chicago, Dallas, El Paso, Harlingen, Houston, and Los Angeles) and with the Navajo Nation in Window Rock, Arizona. In 2008, an evaluation study of Marathon Kids was carried out by the authors to assess the impact of Marathon Kids on 4th and 5th grade children's physical activity, fruit and vegetable consumption, and related psycho-social factors (n = 1,084 students) (Springer, Kelder, Ranjit et al., 2009; Springer, Kelder, Ranjit et al., in press). While Marathon Kids was found to have several significant and positive effects on running, athletic identity, physical activity self-efficacy, and outcome expectations for physical activity, the findings for fruit and vegetable consumption were more modest. In response, Marathon Kids®, with grant funding from the Michael & Susan Dell Foundation, developed and pilot-tested strategies aimed at enhancing fruit and vegetable consumption in elementary school children. The Michael & Susan Dell Center for Healthy Living at the University of Texas School of Public Health-Austin was subcontracted by Marathon Kids to evaluate the enhanced strategies.

This report presents findings on the evaluation of a pilot study of Marathon Kids' enhanced fruit and vegetable promotion strategies conducted in 19 elementary schools in Austin, Texas during the 2010-2011 school year. In learning about the implementation of Marathon Kids in sites outside of Texas, a secondary aim of the evaluation study was to assess the implementation of Marathon Kids in two marquee cities: Los Angeles, California, and Chicago, Illinois. The report is structured according to the two study aims: *Study Aim 1: Evaluation of Strategies to Promote Fruit and Vegetable Consumption in central Texas;* and *Study Aim 2: Assessment of implementation of Marathon Kids in Two Marquee Cities.*

Evaluation of Strategies to Promote Fruit & Vegetable Consumption (Aim 1)

Description of Marathon Kids Program and Enhanced Strategies

The core program activities of Marathon Kids (MK) center on a 6-month walking/running and fruit and vegetable consumption (FVC) program for elementary school children and their families. During the program, students track the number of miles they walk or run along with the number of fruits and vegetables they eat by coloring in their MK Mileage Log and MK Fuel Log for each quarter mile run/walked and each fruit/vegetable consumed, respectively. Successful completion of MK is based on walking or running 26.2 miles over a ~6-month period and eating fruit or vegetables 5 times a day for 26 days for one month. Students can perform these activities at school, home, and community, and PE teachers, classroom teachers, parents and community leaders help to implement the program. In many schools, structured time is provided during recess, PE class, or other periods of the school day for students to walk or run, and teachers often assist students with the tracking of their miles and FVC. The Marathon Kids program is book-ended by highly publicized Kick-Off and Final Mile Run events held at well-known public venues, such as university or city football stadiums. Students who complete the program receive a finisher t-shirt, and those who attend the Final Mile Run also receive a medal. A distinguishing feature of the nonprofit MK is that the program is offered at no cost to participants.

Stemming from the original Marathon Kids model, two Marathon Kids program conditions were developed to explore strategies aimed at strengthening Marathon Kids' program impact: a.) an enhanced fruit and vegetable condition ("Marathon Kids Enhanced") and b.) an enhanced fruit and vegetable plus school community organizing condition ("Sprouting Healthy Marathon Kids").

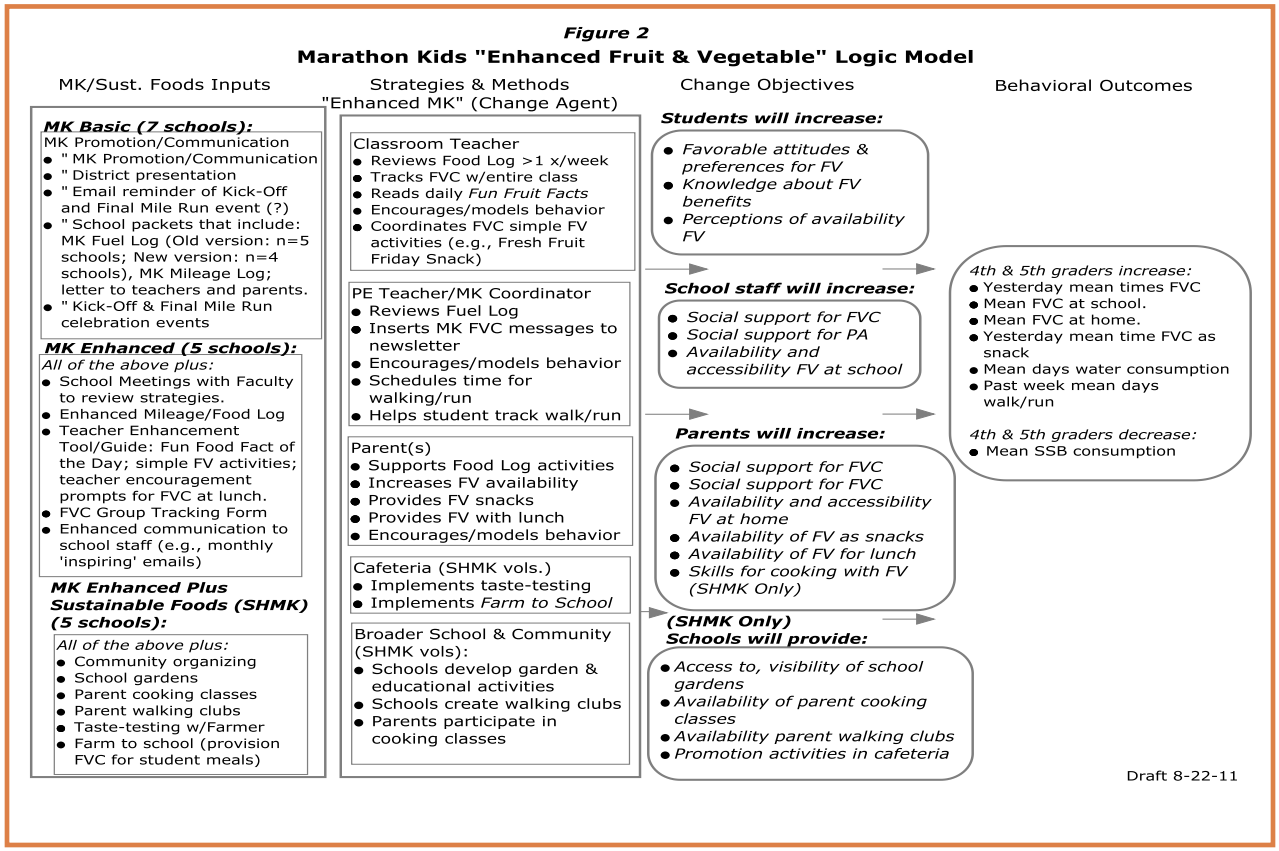
The *Marathon Kids Enhanced* condition focuses on enhancing strategies to promote fruit and vegetable consumption via teachers and parents. This condition includes a modified fruit and vegetable and mileage tracking log (Figure 1 and Appendix A); increased communication between Marathon Kids (MK) staff and school faculty via monthly emails and a school site visit; provision and promotion of daily fruit facts with students; promotion of group tracking of student FVC with classroom and PE teachers; and promotion of increased communication about MK between schools and parents.

Figure 1. Revised Mileage/Fuel Log.

Development of the *Enhanced Marathon Kids strategies* was informed by two focus group discussions with classroom teachers, PE teachers, and parents as well as solicitation of feedback from individual stakeholders generated during spring and summer of 2010. Two key modifications to the Food Log were: a.) placement of the fruit and vegetable tracking log on the same page as the Mileage Log. This modification stemmed from discussions with stakeholders that indicated that the original Fuel Log was

not receiving as much attention in part due to its placement on the backside of the Mileage Log; and b.) a modification from coloring of the number of fruits and vegetables consumed per day to a scavenger hunt checklist approach in which students check off their progress with achieving specific "fun" goals around FVC.

The *Sprouting Healthy Marathon Kids* (SHMK) condition stems from a partnership between Marathon Kids and Sustainable Foods Center (SFC) that aims to "wrap community around schools" to generate parent-school-community-led action around student FVC, community-school gardens, access to fresh F&V from local farmers, and promotion of physical activity (PA) through activities such as walking clubs. The SHMK condition incorporates core program activities from each organization, including scheduling of time to walk and run during the school day and tracking of miles and FVC as promoted by Marathon Kids, as well as farmers' visits, taste-testing, farm to school provision of locally grown vegetables and fruits, parent cooking classes (The Happy Kitchen), creation of school and/or community gardens, a grow local class, and afterschool programming as delivered by Sustainable Foods Center. In addition, the SHMK condition incorporates the enhanced MK strategies as outlined above. An important feature of the SHMK condition is a focus on school organizing for promotion of FVC and PA via the establishment or enhancement of school parent wellness teams. Several parent meetings were held by MK and SFC staff and volunteers. Teams were encouraged to meet regularly with the aim of selecting and implementing actions from a menu of activities, and MK and SFC coordinated communication with the teams via the establishment of a phone tree. Figure 2 presents the program framework (logic model) for each condition.



Evaluation Objectives (Aim 1)

Two primary objectives guided the evaluation of the pilot fruit and vegetable study:

1.) To assess the effect of enhanced MK strategies on increasing fruit and vegetable consumption among 4th and 5th grade elementary school students.

Evaluation Question: Do 4th and 5th grade children who attend Marathon Kids 'enhanced schools' and 'Sprouting Healthy Marathon Kids schools' (SHMK) consume more fruits and vegetables a day compared to children who attend MK regular schools?

2.) To assess the effect of enhanced communication strategies on increasing parent support for Marathon Kids activities and program objectives in public elementary school students.

Evaluation Question: Do parents whose children attend Marathon Kids 'enhanced schools' and SHMK schools participate more in MK activities and provide more support for their children with MK activities compared to children who attend MK regular schools?

Methods

Evaluation Design & Sample

A nonequivalent comparison group, pretest-posttest design was employed to assess the impact of the enhanced fruit and vegetable strategies. Under this design, outcome measures such as fruit and vegetable consumption (FVC) among 4th and 5th grade elementary school students attending "enhanced" Marathon Kids schools (n=5) and "enhanced plus Sustainable Foods" (*Sprouting Healthy Marathon Kids*) schools (n=5) were compared with outcomes among students attending a "regular & customary" MK condition (n=7). While a non-MK comparison group condition was initially proposed, we were not able to find schools that were not implementing the program- a testament to the reach of Marathon Kids in central Texas. Baseline measurements were conducted in September/October of 2010, followed by two interim measurements conducted in November/December 2010 and February 2011, and one posttest measurement in April/May 2011(Figure 3). In selecting schools, we aimed to match schools on school composition of student economic disadvantage with five pre-selected *Sprouting Health Marathon Kids*

	MK_{SHMK} (5 schools)	O_1	X_{SHMK}	O_2	O_3	O_4
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	MKenhanced (5 schools)	O_1	$X_{MKenhanced}$	O_2	O_3	O_4
R	*MKregular* (7 schools)	O_1	$X_{MKregular}$	O_2	O_3	O_4

Figure 3. Nonequivalent Comparison Group, Pretest-Posttest Evaluation Design. Evaluation of Marathon Kids Pilot Intervention Phase II. 2010-2011.
*O=Observation period, X=Intervention

(SHMK) schools. Fifteen schools were initially identified to be matched with the SHMK schools. Five of the fifteen schools were randomly assigned to the "enhanced" condition and ten were assigned to the regular and customary comparison group condition. Of the ten regular schools, one declined the invitation to participate, and two schools were excluded due to high socioeconomic status (<60% economic disadvantage), resulting in n=7 regular MK comparison schools.

Measures

Fruit & Vegetable Consumption and Related Measures: A self-administered questionnaire was developed to assess 4th and 5th grade children's fruit and vegetable consumption and psychosocial and environmental factors related to fruit and vegetable consumption (see Appendix B, Student Survey). Items assessing fruit and vegetable consumption were adapted from the School Physical Activity and Nutrition (SPAN) survey, which has been tested for validity and reliability as part of the School-Based Nutrition Monitoring project (Hoelscher et al., 2003; Hoelscher et al., 2004; Penkilo et al, 2008). The SPAN survey items have been found to have an acceptable to good level of reproducibility in 4th grade students, with Kappa statistics for FV items ranging from 0.60 to 0.65 (Penkilo et al., 2008). Psychosocial and environmental measures were based on a Likert-type response scale and included: *taste preference* for FV and healthy foods (3-item composite variable based on Neumark-Sztainer et al., 2003); *healthy eating self-efficacy* (5-item composite variable based on Neumark-Sztainer et al., 2003, e.g., "If you wanted to, how sure are you that you could eat healthy food when you are…at a fast food restaurant?"); *outcome expectations for healthy eating* (5-item composite variable based on Neumark Sztainer et al., 2003 e.g., "The types of food I eat affect my health."); and *teacher and parent support* for FV consumption (5-item composite variable based on Hoelscher et al., CDC SIP15 Project, in process). Availability (5 items) and accessibility (2 items) to FV at home were based on a scale developed by Dr. Sandra Evans adapted from measures by Hearn et al., 1998 and Kratt et al, 2000.

Weight Classification: In addition, we included physical measures of height and weight as well as process measures of teacher and parent participation in Marathon Kids. Student height and weight were assessed following standardized protocols (see Springer et al., in press) at the pretest measurement in September/October 2010 and at posttest in May 2011. Based on height and weight data, we calculated student BMI-for-age and sex percentiles. Weight classification was included in the study as a possible covariate to be adjusted for in the analyses.

Process Evaluation: While process evaluation was not included in the original subcontract, we included some process evaluation measures with the aim of providing a general assessment of implementation of the proposed program strategies and activities. In addition, we obtained data from Sustainable Foods/Marathon Kids on specific inputs delivered. Process evaluation measures implemented by University of Texas School of Public Health (UTSPH) included measures of various aspects of program participation in the student self-administered questionnaire, parent self-administered questionnaire, and classroom teacher self-administered questionnaire, and MK school coordinator survey. Appendix B presents the study instruments.

Data Collection

Schools were invited to participate in the study during spring 2010. Once study schools confirmed participation, fourth and fifth grade children from the study schools were invited to participate in the study via an oral and written description of the study, which was also sent to their parents to obtain consent for participation in the study. The self-administered student questionnaire was administered to students who provided assent and parental consent for participation in the study. The questionnaire was administered during the school day by trained data collectors at four time points as indicated above. In addition to the self-administered survey with children, we also implemented a self-administered questionnaire with PE Teachers/Marathon Kids Coordinators to assess the process for implementing Marathon Kids. The teacher survey was implemented at one time point at the end of the spring semester 2011. Lastly, a parent survey was administered in fall 2010, prior to the MK Kick-Off Event, and in spring 2011 to assess parent participation in Marathon Kids' activities as well as parental support for children's participation in Marathon Kids' program goals. All study protocols and study objectives were reviewed and approved by the UTSPH Committee for the Protection of Human Subjects as well as the Program Evaluation Department at the Austin Independent School District.

Analysis

Descriptive statistics along with chi-square tests and ANOVA were conducted to describe the sample using IBM SPSS Statistics 19. In assessing the effect of the three program conditions on study outcomes (mean yesterday FVC; mean frequency of 'usual' school and home FVC; mean social support, outcome expectations, and self-efficacy for FVC; and mean FVC taste preference), repeated measures regression methods were used to model the mean and variance of each outcome between the baseline and interim measures in the comparison and intervention groups, and the difference in mean between conditions. Analyses adjusted for baseline estimates for the primary variables of interest as well as grade level, gender, ethnicity, BMI categories, and socio-economic status (both measures at school and individual levels). In maintaining the nominal Type 1 error rate, mixed-effects regression models were run in which school was specified as a random effect. Regression analyses were performed using the statistical software package SAS v9.1.

Findings (Aim 1)

Student Survey Findings

Of the n=964 students who returned consent forms to participate in the project from the 17-school sample, we received consent to participate from n=866 students. Of those who consented to participate, n=747 participated in the first wave of the study. Of those students, n=484 students participated in all four waves of administration of the survey, representing our final analytic sample and a 65% cohort response rate. The final sample was roughly half female (55%), with generally equal

composition of 4th and 5th grade students (Appendix C, Table 1). Hispanic students represented the majority ethnic group across conditions (mean=72.7% of total sample). While ethnic composition was similar in the basic (MK regular) and enhanced group, the Sprouting Healthy Marathon Kids condition had a higher composition of African American students. Lastly, the school-level economic disadvantage was similar across schools (mean=94.9%), and no significant differences were observed by individual-level SES.

Fruit & Vegetable Consumption

Previous Day Fruit and Vegetable Consumption: Figure 4 presents the mean times students reported consuming fruits and vegetables on the previous day over the four periods of assessment during the 2010-2011 school year. Students attending the Sprouting Healthy Marathon Kids (SHMK) schools consumed significantly more fruit and vegetables between baseline and wave 3 (February 2011) compared to students in the regular MK condition, with a difference in difference estimate of .54 times (SE: 0.27) more fruits and vegetables (p=.04) (Figure 4). This equates to roughly ¼ cup more of fruits and vegetables per day. At posttest in May 2011, which took place approximately 2 months after the program ended, FVC declined across all conditions.

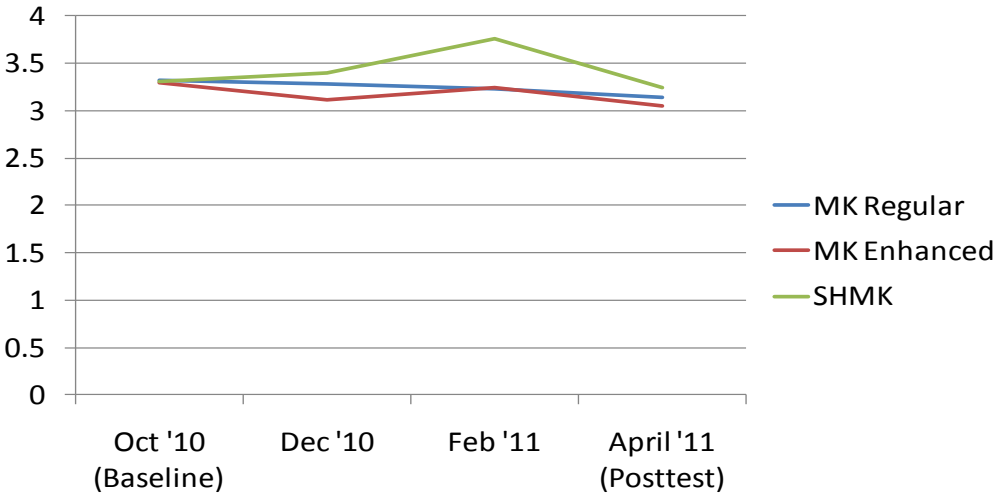

Figure 4. Previous day mean times 4th & 5th grade students consumed fruit & vegetables by MK Regular, Enhanced and SHMK conditions. 2010-2011

Figures 5 & 6 present the previous day mean consumption of fruit and vegetables, respectively. A significant increase in fruit consumption was noted for students attending SHMK schools compared to children in the regular MK condition (estimate: 0.38, SE: 0.16, p=.016) (Figure 5). While SHMK students also reported higher vegetable consumption compared to students in the MK regular and enhanced condition, this difference was not statistically significant (p=.32) (Figure 6).

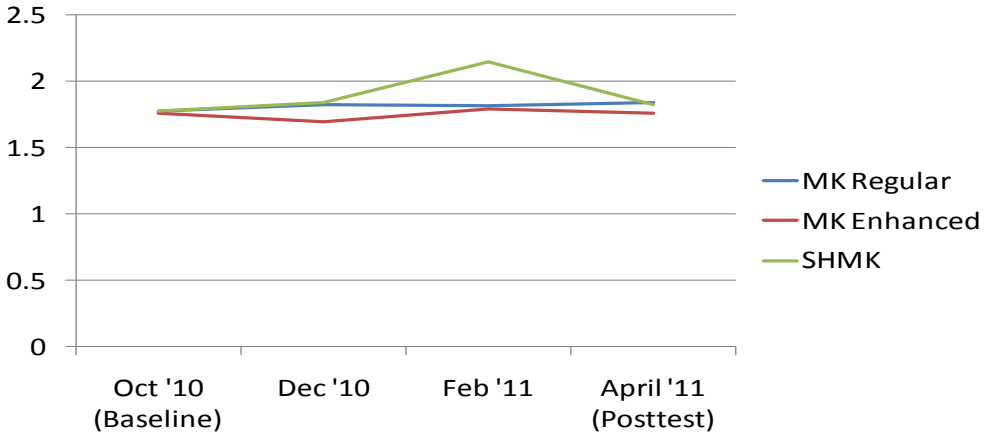

Figure 5. Previous day mean times 4th & 5th grade students consumed fruit by MK Regular, Enhanced and Sprouting Healthy MK conditions. 2010-2011

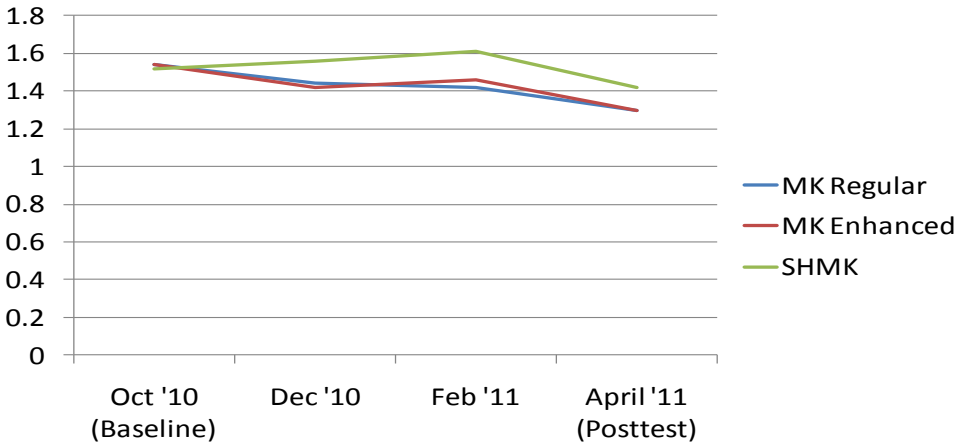

Figure 6. Previous day mean times 4th & 5th grade students consumed vegetables by MK Regular, Enhanced and Sprouting Healthy MK conditions. 2010-2011

We also assessed the change in the number of times students consumed FV as a snack. Significant increases in FVC as a snack between baseline and wave 3 were observed for all three conditions (MK regular: mean of 1.19 to 1.40 times, p=.024; Enhanced: 1.15 to 1.39, p=.022; and SHMK: 1.15 to 1.47, p=.009). In comparing the change in FV snack consumption among the three conditions, no significant differences were observed (Appendix C, Table 2).

Lastly, we assessed habitual patterns of fruit and vegetable consumption by asking how often students consume FV ("always", "most of the time", "some of the time", or "never") at school and at home. Students in the *enhanced* condition reported a significant increase in habitual FV consumption *at school* (estimate: 0.25, SE: 0.12, p=.03) between baseline and wave 3 compared to students in *MK regular* schools. No significant changes in *home* FV consumption were observed between baseline and follow-up for students in any of the three study conditions (Appendix C, Table 2b).

Water & Soda

With the exception of the enhanced condition, no significant changes in water or soda consumption were observed between baseline (September/October 2010) and wave 3 (February 2011) (Appendix C, Table 2a). While soda consumption tended to decrease in the regular and SHMK conditions (p=N/S), an unexplained increase in soda consumption was observed in the enhanced condition, from a mean of .79 times in the previous day to 1.06 times (p=.03).

Body Mass Index

While BMI was measured to be included as a covariate with the analyses to ensure comparability of the three study groups, we also analyzed potential changes in BMI between baseline and February 2011. We found the prevalence of overweight/obesity (≥85th percentile) decreased across conditions from baseline to posttest (53.3% to 49.5% for children in the MK Regular condition, p=.48; 56.7% to 54.0% for Enhanced, p=.66; and 46.7% to 42.9%, for SHMK, p=.58) [data not shown in tables]. Although findings were not statistically significant, the 3-4% decline in overweight/obesity merits further investigation of the potential benefits of Marathon Kids on overweight/obesity prevention.

Psychosocial Intermediary Outcomes

Appendix C, Table 3 presents findings on the changes in intermediary outcome variables, which include children's *fruit and vegetable taste preference, self-efficacy for fruit and vegetable consumption, outcome expectations for healthy eating, teacher and parent support for fruit and vegetable consumption.* Across conditions, FVC self-efficacy increased, although statistically significant increases were only noted for the regular MK condition (p=.038). No significant increases were observed for FV taste preferences, FV outcome expectations or parent support for FV consumption. With the exception of FV availability in the regular MK condition , no significant differences in FV availability or accessibility were found. In the regular MK condition, children reported significant increases in home FV availability (p=.026). An unexpected finding was a decrease in student-reported teacher support for FV, which was observed across conditions (p<.05 for regular MK and enhanced conditions).

Student Process Evaluation Findings

Appendix C, Table 4 presents student participation in Marathon Kids as well as participation in student Food Log and Mileage Log tracking. Within the 17 schools, 64.3% of the total sample (n=484) reported participating in Marathon Kids in the 2010-11 school year. No significant differences were found between boys and girls or the frequency at which they completed their miles or frequency of tracking FV. Significant differences were found between the three conditions in frequency of both fruit and vegetable and mileage tracking. In regards to the Food log, the Enhanced MK condition reported the highest percentage (29.5%) followed by SHMK (27.2%) and Regular MK (21.9%). A similar pattern was found for the mileage log tracking with Enhanced MK reporting the highest every day tracking (35.9%) followed by SHMK (31.5%) and Regular MK (25.9%).

Appendix C, Table 5 assesses school support for tracking FV and FV process-related measures. Significant findings for classroom teachers helping students to track FV were noted. The Enhanced MK condition reported the highest help with 74.4% followed by SHMK (62.2%) and Regular MK (55.0%). Significant differences in engagement with growing gardens were noted. Approximately half of the students of the SHMK condition (50.5%) helped to grow a school garden followed by the Regular MK condition (40.9%) and Enhanced MK (23.9%). There were no statistically significant differences regarding students' learning about FV across conditions. While not statistically significant (p=0.66), a larger percentage of SHMK students reported they did taste-testing (70.8%) compared to Enhanced and regular (59.0% and 57.7%, respectively). Similarly, a larger percentage of SHMK students (17.8%) reported that they attended a cooking class compared to enhanced students (12.0%) and regular MK students (14.9%) (p=N/S).

Table 6 in Appendix C presents school support for tracking mileage and time for walking/ running on campus. Support for tracking miles was high among the total sample, with the majority of students reporting that their classroom teacher (59.0%), PE teacher (81.9%), and parent/guardian (65.3%) helped with tracking. No statistically significant differences across conditions were found in regards to classroom teacher, PE teacher, or parent/ guardian helping students to track miles among the conditions. Finally, a large percentage of students across conditions (89.3% for total sample) reported that they were provided time to walk or run during the school day.

Marathon Kids Coordinator & Classroom Teacher Survey Findings

Boxes 1-3 present qualitative findings on what MK coordinators and teachers liked most about Marathon Kids as well as their recommendations for strengthening Marathon Kids. Appendix D presents the findings from the Marathon Kids Coordinator Survey and Marathon Kids Classroom Teacher Survey that aimed to assess participation in the various project activities as well as satisfaction with and recommendations for strengthening the program.

Participants in the Marathon Kids Coordinator Survey (n=13) were all PE teachers, majority female and had an average 12.7 years of experience in their profession. The classroom teacher participants (n=46) were primarily female (82.6%), fairly evenly divided between 4th and 5th grade teachers, and had an average of 5.3 years experience teaching (Appendix D, Table 1).

Overall, MK Coordinators and teachers expressed high satisfaction with the Marathon Kids program, with the majority (>85%) indicating that Marathon Kids children enjoy Marathon Kids, that Marathon Kids contributes to child health and fitness, and that they would recommend Marathon Kids to other teachers (Appendix D, Table 2).

Tables 3-9 in Appendix D presents findings on participation in various Marathon Kids and SHMK activities. Overall, coordinators and teachers indicated a high level of participation in tracking miles and in celebratory events (Appendix D, Table 3). Most schools tended to display mileage logs in classroom as compared to the gym (62% vs. 31%, respectively) (Table 3); fewer schools reported displaying the fuel logs (23% vs. 46% for gym and classroom, respectively) (Table 4).

Box 1. What coordinators most liked about the Marathon Kids program at their school:

- The new logs were cool. They encouraged scholars to try new fruits & veggies; The mile logs having fruit logs as well
- Classroom teacher assistance
- Kick-off Mile
- Promotes cardio-vascular health and healthy eating habits
- Free program
- More students joining because classroom teachers are helping out
- It motivates students to move their bodies and exercise
- I loved that over 90% of our students participated
- I enjoyed watching the kids at the Final Mile completing their last run for the year and all the freebies inspired my kids to want to participate next year.

Coordinators' recommendations for strengthening Marathon Kids at their school:

- Please include pre-k too. They are part of our school and should be included.
- Keeping it simple
- Make the kickoff-final mile more exciting. Less talk…more for kids to do.
- Large signs to post around campus – serve as a reminder to track mileage and food
- I think it would be valuable for classroom teachers to participate in walk/run program and receive t-shirts
- More classroom teacher/school-wide buy-in due to PE time constraints
- Do away with the registration process. Have all the students get involved.
- Letting others help with implementation, it is a lot of work for one person to do (the coordinator)
- It is very difficult to log both running and fruit & veggies at home without parent help. We only did the running log and promoted healthy eating. It worked very well for our school.

Box 2. What teachers most valued about Marathon Kids at their school:

- Students sign up in PE class then are recognized later in the year and given t-shirts to wear
- It got kids interested in being active!
- It creates parental engagement from external community members with school
- It teaches students the importance of being healthy while giving them a goal to achieve. This creates a fun correlation between exercise and healthy food.
- Brought kids' attention to being healthy.
- The daily time around the track. The number of students involved.
- Our garden was very successful this year. Also, the kids had fun participating in the exercises.
- Students starting at a base and recognizing how their endurance, body has changed.
- Kids being active! Kids thinking about healthy activities.
- Students engaged in physical activity on a consistent basis.
- Support of the IDEA of movement for health. Reinforcement of same.
- All of my students completed 26.2 miles.
- Students are highly motivated to keep track of their miles walked or that they ran!
- Students were elated when they reached/attained their personal goals.
- Celebrating.
- School assembly honoring all participants. Aspects of healthy living in and outside of school.
- The Final Mile celebration
- I think it was great for the kids. They enjoyed it.
- They did regular running. They ate more veggies.
- Attending the festivities at Myers Stadium is a big treat for the kids-they also like getting the shirts and certificates.
- The children developed stamina. Several of my children lost weight!
- Students enjoy coloring in the mileage log and get very excited every time they got a new sheet.
- Students actually wanted to walk and exercise.
- All of my students participated this year. It became a class project and they loved earning the t-shirt.
- I was really interested in the farms to school program and the community garden.
- Food facts
- My scholars were very pumped about the kick off and final mile ceremony.
- We greatly enjoyed the Whole Foods trip – exposing our kids to a variety of foods they may not have been familiar with; connecting through the idea that you can be a backyard gardener, as some of our students are familiar with that.
- Mileage log, kickoff event, T-shirts, tracking fruit and veggies.
- The kids were really excited about the kickoff. We had fun tracking the miles and connecting it to the real marathon.
- Students were well informed about healthy foods and being active.

Approximately 50% of respondents across the three conditions indicated encouraging FV intake before lunch and participating in reading fun food facts to their students (Tables 4 & 5). The majority of schools across the three conditions structured time for walking and running during recess (average across conditions: 92%) compared to PE class (69%). Of note, 2 of the 13 MK coordinator respondents indicated their schools structured time before and after school, with one respondent indicating structured time during lunch (Table 6). The majority of classroom teachers (85%) indicated that they structured time for walking and running during recess (Table 7).

With regard to participation in a range of fruit and vegetable promotion activities (e.g., participation in farm to school, taste-testing, parent cooking classes) was generally the highest among the SHMK condition schools (Table 8). Similarly, a higher percentage of SHMK schools and enhanced schools reported displaying the Mileage Log and Fuel (Food) Log in the classroom compared to basic/regular MK schools (Table 9).

Parent Survey Findings

We administered surveys with parents of the participating students in the evaluation schools during the fall (October/November) of 2010 and the spring (February) of 2011. Out of a total of 765 parent surveys we received a response rate of 69.41 % from parents during the fall with 531 respondents and in the spring, we achieved a parent survey response rate of 61.4 % with 326 respondents out of 531 surveys delivered.

Demographics: Table 1 in Appendix E presents the demographic characteristics of the parent sample for both the October 2010 and February 2011 surveys. The average age of the respondents was similar in both the samples (35.21 yrs in the fall and 35.27 yrs in spring) and the respondent gender was predominantly female (82.8 % and 87.2% respectively) with the majority of respondents being the mother of the child (87.2%, 89.1%). The ethnicity of the respondents was 75.9% Hispanic in the fall survey and 81.9 % Hispanic in the spring survey. The language spoken at home was primarily Spanish (69.7%, 62.7%). Most of the respondents reported that they had a high school graduate/GED educational level (72.3%, 81.6%) and a total monthly income of less than 2000$ (80.1%, 80.7%). No significant differences were found between the two samples for total reported household monthly income or the educational level of the respondents. 66.4 % of respondents during the fall and 58.9 % of respondents during the spring reported signing up

Box 3. Teacher recommendations for enhancing Marathon Kids.

- Connect with current school health activities
- More information for teachers.
- Create an incentive system to engage all members of the family to participate in sport events, such as “the bike day”
- I would enjoy having some ideas on how to implement these practices in an everyday classroom setting.
- Learn more about vegetable logs
- The events for the final mile, etc felt too strict. It was not school-pride friendly. Would’ve liked more freedom there.
- I’d like fruit and veggie logs for each kid
- Have the PE staff hold classroom teachers more accountable.
- Scripted lessons or charts for student to personally monitor themselves as part of their lifestyle.
- More visual aids for teachers to support. Posters in our classrooms too.
- Check points during the year.
- Get/set goals for teachers. Get teachers involved in school as a club for their own weight control an exercise for fitness.
- Students like to wear the beads in their shoelaces but maybe using other kids of rewards that will facilitate fruits and vegetables to the kids families, like grocery store coupons.
- Send a form electronically. Make most/all forms and surveys electronic.
- School kick off and awards assemblies, rather than just citywide.
- Star at the beginning of the year.
- More information on fruits and vegetables.
- More time during the school year to include Marathon Kids in curriculum.
- Need more time to implement some aspects of the program.
- Tying in to TEKS through games or graphing activities.
- Specification about what kids should count and not count as their “running”.

their child to participate in Marathon Kids (Appendix E, Table 5). A greater percentage of parents in the spring sample in all of the three intervention groups reported receiving 1-2 written messages about fruit and vegetable consumption when compared to the fall (MK Basic 50.9% vs 39.1% (p=0.02), MK Enhanced 47.8% vs 42.1% (p=0.16) and SHMK group 39.1% vs 29.7% (p=0.07) respectively).

Parent Social Support: Parental social support for physical activity was measured by scores on a composite variable based on six items that measured encouragement, observation and direct participation in physical activity with the child (Appendix E, Table 2). Each of the six items were measured on a five point Likert scale (1-Never to 5-Always) with overall scores ranging from 6 (lowest) to 30 (highest) points. No significant differences were observed among the three intervention groups with a mean overall score of 23.37 for the fall sample and 23.33 for the spring sample. Parental social support for fruit and vegetable consumption was measured with a similar composite variable of five items that measured encouragement for fruit and vegetable consumption, eating fruits and vegetables, preparing meals with fruits/vegetables and providing fruits/vegetables to the children (Scores range from 5 (lowest) to 25 (highest)). Scores were uniform for each of the three groups with an overall score of 20.5 for the fall sample and 20.59 for the spring sample (Appendix E, Table2).

Fruit and Vegetable Consumption/Availability: Table 2 in Appendix E also presents the reported mean servings of fruit and vegetable consumed each day by the respondents. There were no differences in the vegetable consumption with a reported means of 2.25 servings for the fall sample and 2.35 servings for the spring sample. Respondents in the MK enhanced group during the spring reported a greater consumption of fruits (2.59 servings/day) when compared to enhanced group during the fall (2.28 servings/day) (p=0.01). The mean scores for fruit and vegetable availability at home (4 point scale, 1-Never, 4-All the time) within the last one week are presented in Table 3, Appendix E. Parents in MK Basic group reported a greater availability of vegetable juice during the spring when compared to the fall (p=0.01). Parents in the Sprouting Health Marathon Kids (SHMK) group reported a significantly greater availability of fresh fruit (p=0.03), fresh fruit in an easy to reach place (p=0.01) and cut up fresh vegetables in an easy to reach place during the spring (p=0.00).

Family Meal and Preparation habits: There were no significant differences between the fall and spring samples in the mean number of times that respondents had dinner together with their families (5.6 and 5.72 respectively) or in the mean number of times that children ate at fast food restaurants, parents prepared meals with fresh fruits and vegetables for the family or children helped prepare the meals (Appendix E, Table 4). About 11% of parents in the fall sample and 13% of parents in the spring reported growing their own fruits and vegetables at home, while 6.7 % in the fall and 3.76 % in the spring reported attending classes that taught growing fruits and vegetables within the last 5 months. The percentage of parents attending cooking classes in the last five months was similar in both the fall and spring samples (5.7%, 5.64% respectively).

Physical Activity: No significant differences in student physical activity participation were observed between the baseline and posttest periods for any of the three intervention conditions (Appendix E, Table 5).

Evaluation of Implementation of Marathon Kids in Two Marquee Cities (Aim 2)

Evaluation Objectives

Two primary evaluation objectives guided the marquee city evaluation study:

1.) To assess the implementation of Marathon Kids in schools in Chicago and Los Angeles.

2.) To identify barriers, facilitating factors and lessons learned with program implementation as well as recommendations for strengthening delivery of Marathon Kids in two marquee cities.

Methods

Evaluation Design & Sample

Evaluation of the implementation of Marathon Kids in Los Angeles and Chicago was based on a process evaluation-oriented design. Specifically, the process evaluation explored the implementation of Marathon Kids with key Marathon Kids school coordinators (PE teachers and classroom teachers). Key process evaluation indicators assessed included fidelity (whether the program was implemented as conceptualized), dose (the level of program implementation), and program reach. In addition, we aimed to generate qualitative insights about Marathon Kids from key stakeholders as related to program highlights, lessons learned, and recommendations for strengthening the overall program.

Measures, Data Collection Methods & Analysis

Online Marathon Kids Coordinator Survey: The survey consisted of 26 questions and was based on the prior survey from Phase I of Marathon Kids administered to coordinators in Houston and central Texas (Springer, Kelder, Ranjit et al., 2009) as well as specific input from Marathon Kids Program Manager, Marinda Reynolds. Process evaluation data were collected via an online questionnaire administered in spring 2011 with Marathon Kids school coordinators based in public elementary schools at Los Angeles Unified School District and Chicago Public Schools, with email addresses for PE teachers and Marathon Kids school coordinators obtained from participating school districts and Marathon Kids staff. Appendix B presents the Marathon Kids Coordinator Online Survey. Data were analyzed using Stata version 11.0 (College Station, TX). Descriptive statistics were run as well as chi-square tests and ANOVA to test for significant differences.

Semi-Structured Interviews with Key Stakeholders: In addition to the online Marathon Kids Coordinator Survey, we conducted semi-structured interviews with key Marathon Kids stakeholders from each of the two marquee study sites with the aim of identifying key barriers, facilitating factors, lessons learned, and recommendations for strengthening program implementation. Participants for the semi-

structured in-depth interviews were identified through the Marathon Kids online survey. Twenty-five MK coordinators were successfully recruited (n=14 from Los Angeles and n=11 from Chicago).

Data Collection: A semi-structured interview schedule with primarily open-ended questions was developed based on input from Marathon Kids staff as well as the guiding objectives of the study (see Appendix B for schedule). Interview questions were structured around the following topics: how Marathon Kids is implemented in a given school; how a given school communicates about Marathon Kids; how a given school supports Marathon Kids; benefits of Marathon Kids; and lessons learned. Participants were invited to the interview via the Online Survey, and interviews were scheduled by email and conducted by telephone by our project coordinator Sherman Chow, MPH, MA, who holds master degrees in applied anthropology and public health, and a trained research assistant, Mark Chow, MA. The interviews took between 15 to 30 minutes for each participant, and participants received a $50 Target gift card as a sign of appreciation. Interview participants were read an informed consent, and agreeing to its terms, all conducted interviews were recorded on a digital recorder. The interview questionnaire contained demographic survey questions, and semi-structured, open-ended questions pertaining to the implementation of Marathon Kids in their respective schools (Appendix B).

Data Analysis: All key informant interviews were digitally audio-recorded and then transcribed to facilitate data analysis. Data analysis was conducted using the qualitative software package QSR NVivo (version 8, 2008, QSR International Pty Ltd, Cambridge, MA). Qualitative data analysis consisted of creating a coding scheme based on the focus group questions and responses. Transcript passages were uploaded to NVivo and coded and further sub-coded into conceptual categories. Coding schemes were established and differences in coding were resolved by consensus by two independent coders (S. Chow and M. Chow) in order to ensure inter-rater reliability. Coding of transcript passages involved structured organizing of transcript passages into categories in order to facilitate data analysis and interpretation. Organization of coded and sub-coded passages of transcribed text was examined and emergent themes were identified. Respondent and school identities have been kept confidential, and pseudonyms have instead been employed.

Findings (Aim 2)

Marathon Kids School Coordinator Survey Findings

Approximately 100 MK coordinators, the lead faculty person at a given school for coordinating MK (usually a PE or classroom teacher), were recruited to participate in an online, self- administered survey during spring 2011. Email addresses of the coordinators were obtained from participating school districts and MK staff. A total of 96 school faculty members serving as the Marathon Kids school coordinator (25 from Chicago Public Schools (CPS) and 71 from Los Angeles Unified School District (LAUSD)) responded to the survey. Response rates were 92.6% from LAUSD and 73.2% from CPS, with

an overall response rate of 77.42% (Appendix F, Table 1). Response rates were based on a sampling universe defined by the roster of schools participating in MK from LAUSD and CPS as identified by MK.

Sample Demographics

> 74% of respondents from Los Angeles and Chicago indicated that their schools now structure time during the day (PE class, recess, before and after school) to help their student meet Marathon Kids walking and running goals

Demographic characteristics of the respondents overall and classified by the two school districts are presented in Appendix F, Table 2. The majority of respondents (84.6%) were female with a mean number of years teaching of 16.1. Respondents from CPS were found to have a greater number of years teaching (22.3) when compared to those from LAUSD (14.3). The majority of respondents in the CPS districts were PE teachers (76.2%), whereas those from the LAUSD were mostly classroom teachers (85.7%), which is likely due to the fact that few schools in California have PE teachers. An average of about 63.7% of respondents represented schools with a greater that 75% economic disadvantage. There were significant differences in ethnic composition of schools between the two districts, with the LAUSD respondents representing schools with majority composition of Hispanic students (85.7%) and the CPS district respondents representing a greater composition of African American students (52.4%) along with Hispanics (42.9%)(Appendix F, Table 2). The number of years implementing Marathon Kids ranged from 2.53 in the CPS district to 2.84 in the LAUSD. Respondents from the LAUSD reported a greater number of times attending the MK kick-off and the Final Mile events (3.27, 3.83 vs. 1.62, 1.48) respectively, than the respondents from CPS. As the survey was administered using an anonymous format, we asked respondents to indicate the level of school composition of student economic disadvantage (Appendix F, Table 2).

Implementation of Marathon Kids' Walking and Running Activities

All of the respondents indicated participation in Marathon Kids during the 2010-11 academic year, underscoring a strong reach of the program in each school district. An overwhelming majority of the respondents (98%) said that they would recommend MK to other teachers (Appendix F, Table 3). Teachers also indicated support for Marathon Kids through participation in the main Marathon Kids Kick-Off (62% of respondents) and Final Mile Run events (68.1 %). Approximately 15.8% of respondents from the LAUSD and 7.25% of respondents from the CPS indicated volunteering at Marathon Kids events during the current year. Approximately three out of four respondents (74%) said that the school provides structured time to meet MK walking and running goals. The distribution of the structured time varied between the school districts (Figure 7 and Appendix F, Table 3). In the CPS district, time during PE class was used by a large majority of the schools (68%) as well as recess (24%), mornings before classes (24%) and after school program times (20%). In the LAUSD schools, 46.5% of schools used within class time dedicated to physical activity, apart from PE class (33.8%), recess time (21.1%), mornings (26.7%) and after school time (21.1%). However a majority of the schools in both districts

(61%) did not have a school gardening project. About 38% of LAUSD respondents indicated that their schools developed school gardens separately from Marathon Kids.

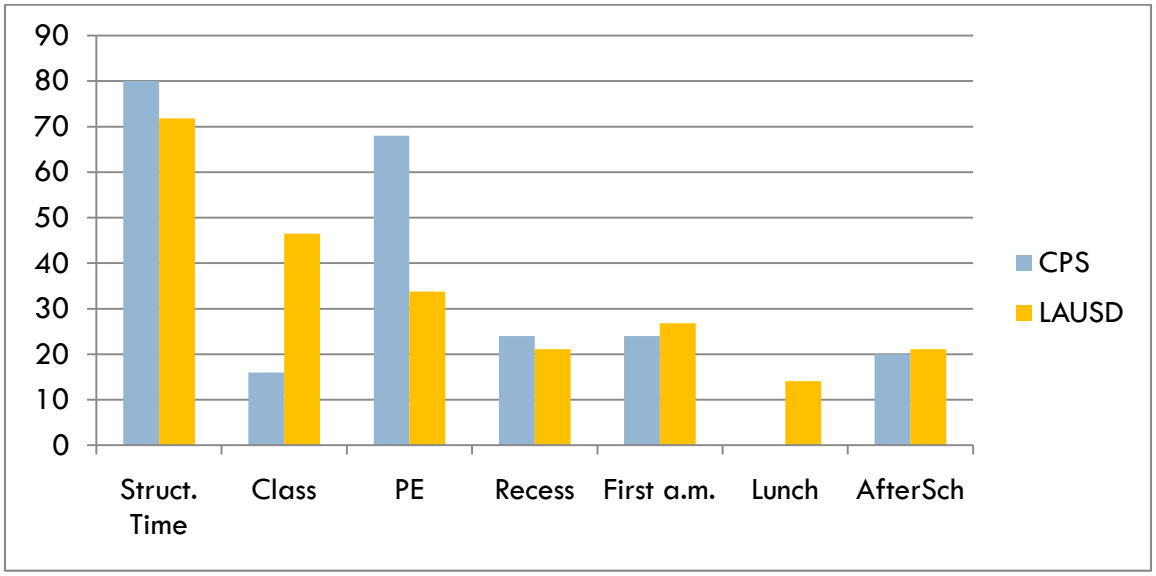

Figure 7. Percentage of schools in Chicago and Los Angeles that structure time for Marathon Kids walking and running and walking and running settings (n=96 schools). Spring 2011.

A high level of instrumental support was noted for children's MK walking and running goals (Appendix F, Table 4). Among the total sample, 69.8% of respondents reported that teachers helped students track miles walked or ran, 39.6% of respondents reported that PE teachers help students track miles and 44.8% percent reported that mile logs were displayed in the classrooms. School districts tended to differ in their approaches for tracking student miles (Appendix F, Table 4). In LAUSD, 83.1% of respondents indicated the classroom teacher supported students' tracking of miles, while among CPS, the PE teacher was the main person who supported tracking of miles (80.0%). A greater percentage of respondents from the LAUSD reported that mile logs were displayed in the classrooms (50.7%) when compared to those from CPS district (28%).

Students completed their Mileage logs mostly at school (58.3%) or both at home and school (37.5%) (Figure 8). Students also completed their Fuel logs at school (32.63%) or at home and school (30.53%); however, an average of 22.11 % of respondents indicated that students did not complete their Fuel logs (Figure 9).

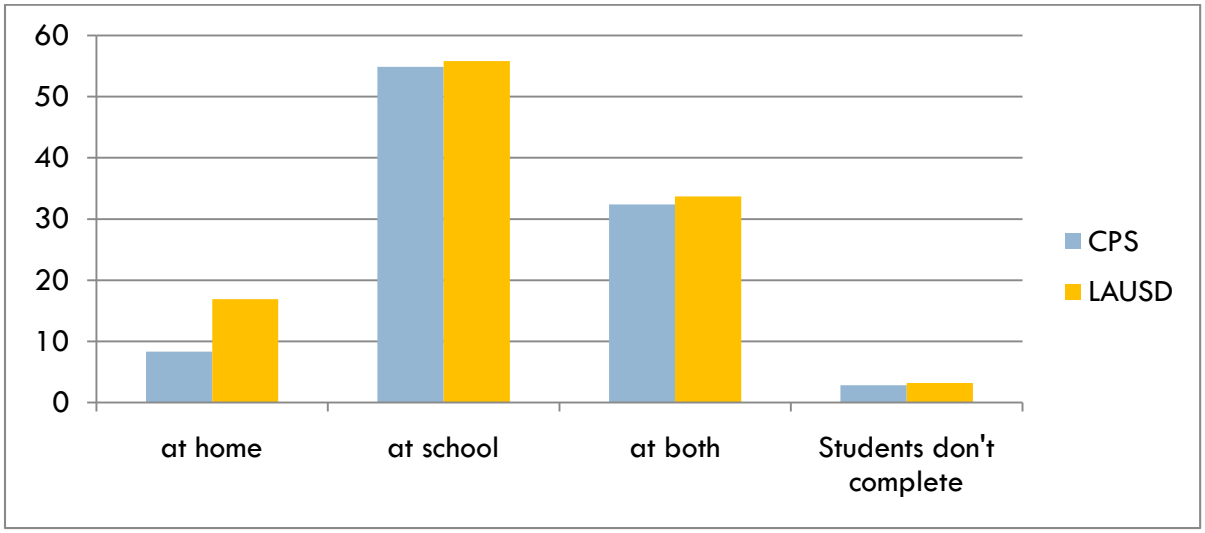

Figure 8. Settings where students track their walking and running miles as reported by MK Coordinators in Chicago and Los Angeles (n=96 schools). Spring 2011.

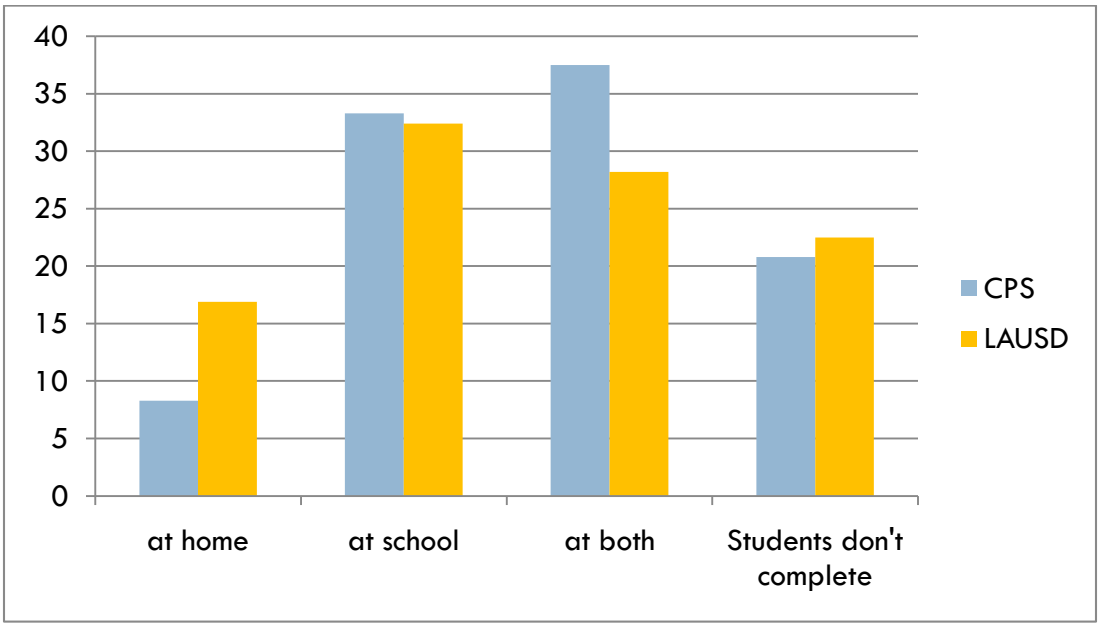

Figure 9. Settings where students track their fruit and vegetable consumption as reported by MK Coordinators in Chicago and Los Angeles (n=96 schools). Spring 2011.

Communication Channels for Marathon Kids

Overall 27.1% of respondents first heard about MK at a regional school district presentation (Appendix F, Table 5). Other major channels through which the respondents received information about MK included the MK website (12.5%), from the school (15.6%) and through co-workers (18.8%).

The majority of respondents from the LAUSD (93%) indicated that the classroom teacher distributed information packets to students, while 72% of CPS respondents reported that PE teachers distributed packets to students. In communicating with parents, the most commonly used method was teachers distributing information to parents via students (67%). Other methods were flyers/emails/letter (36.5%) and school meetings (21.9%). Just under a third of respondents (32%) indicated sending reminder notices to parents during program, representing a potential target for future action.

Nearly 94.8 % of respondents received information about the program through emails sent from MK (Appendix F, Table 5). Flyers (24%) and the MK website (43.8%) were the other routes that the respondents used to get information. Findings on communication channels for the sample as a whole were similar to findings at both the district levels. Respondents overwhelmingly indicated that they would prefer to receive communication via email (95.8% and 96% for LAUSD and CPS, respectively), followed by information mailed to them at school (60.6% and 40%, respectively) (Tables 6a & 6b).

Satisfaction with Marathon Kids

High satisfaction for the program was expressed by coordinators in both CPS and LAUSD (Figure 10). A majority of respondents from both districts would recommend MK to other teachers (>95%) and report that children enjoy MK (~90%). Respondents also expressed feeling high support from MK staff (~88%), that information packets were easy to follow (~90%), that reminder emails were helpful (>90%), and that it was easy to register children to participate (>85%). Just over two-thirds (70%) reported that MK is an important part of their school's coordinated school health plan. Just under 20% of respondents from both districts indicated the need for more training on how to implement MK.

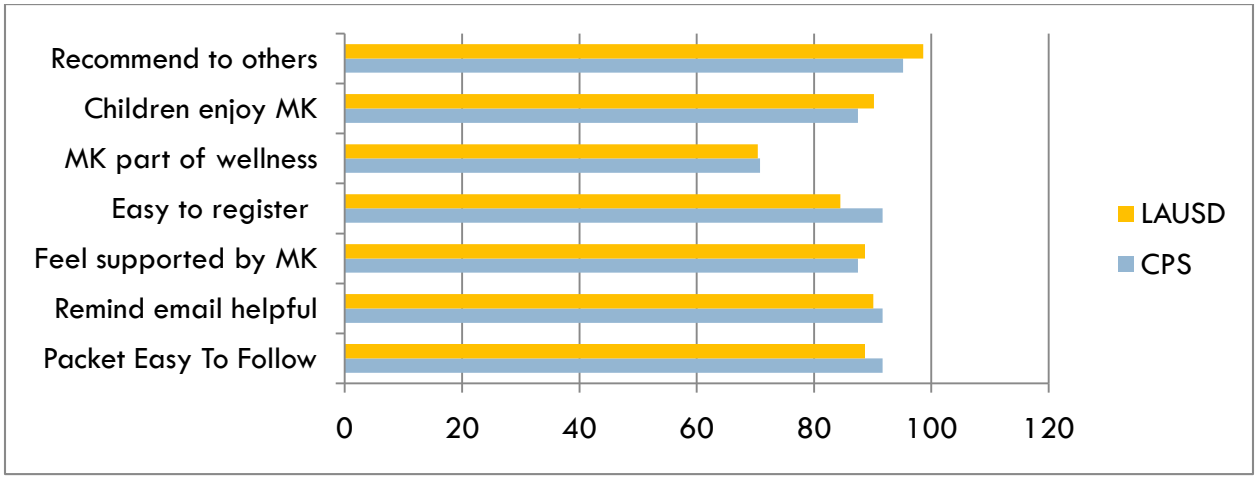

Figure 10. Satisfaction for MK implementation (n=96). Spring 2011.

Marathon Kids Stakeholder Interview Findings

Participant School-related Demographics

Table 1 presents respondent demographics by district. A total of twenty five (N=25) MK coordinators participated in the qualitative interviews, of which fourteen interviews were from the Los Angeles Unified School District (LAUSD) and eleven interviews were from Chicago Public Schools (CPS). Respondents from LAUSD reported an average of 13.21 years of teaching, while CPS reported an average of 22.91 years. LAUSD reported an average of 3.26 years implementing MK, and CPS reported an average of 2.55 years. Table 2 presents respondent occupation by district. Respondents from LAUSD self-identified themselves as classroom teachers (n=12, 85.7%), school administrator (n=1, 7.1%), and district coordinator (n=1, 7.1%). CPS respondents were self-reported as PE teachers (n=8, 72.7%), classroom teachers (n=2, 18.2%), and a school administrator (n=1, 9.1%).

Table 1. Participant Demographics

District	Sex (n=female, %)	Average # of years teaching	Average # of years implementing MK
Los Angeles Unified School District (LAUSD) (n=14)	12 (85.71%)	13.21	3.26
Chicago Public Schools (CPS) (n=11)	9 (81.82%)	22.91	2.55

Table 2. Participant Occupation

Occupation	LAUSD (n, %)	CPS (n, %)
PE teacher	0 (0%)	8 (72.73%)
Classroom teacher	12 (85.71%)	2 (18.18%)
School Administrator	1 (7.14%)	1 (9.10%)
District Coordinator	1 (7.14%)	0 (0%)

Overarching Themes

This section presents the overall themes that emerged from the interviews. Four salient categories have been identified and within each category relevant themes are explored in detail (Table 3) with supplementary respondent quotes and passages. The four salient categories are: (I) Marathon Kids Program Implementation; (II) Additional Program Inputs; (III) Barriers to Implementation; and (IV) Perceived Benefits.

Table 3. Thematic Categories Summary

Thematic Categories	
I. Marathon Kids Program Implementation	***III. Barriers to Implementation***
Ia. Campus Implementation	IIIa. Lack of teacher support
Ib. Mileage Log Tracking	IIIb. Lack of administration support
Ic. Nutrition and Fuel Log Implementation	IIIc. Marathon Kids Events-related Barriers
	IIId. Lack of Parent Support
II. Additional Program Inputs	**IV. Perceived Benefits**
IIa. Marathon Kids T-shirt Days	IVa. Health and Fitness
IIb. School-based Marathon Kids Events	IVb. Goal Setting
	IVc. Testing/ academic benefit

Theme I: Marathon Kids Program Implementation

The themes in this category center on how the Marathon Kids program is implemented and facilitated in respondents' respective schools. These themes focus on the school/ campus-level of program implementation including both structured time for walking/ running and mileage tracking. Finally, the implementation of the nutrition and fuel log components of Marathon Kids is explored.

Ia. Campus Implementation: All respondents from LAUSD and CPS stated that Marathon Kids walking/ running was implemented on the campus level. While a few MK coordinators did state that there were several classroom teachers who encouraged students to achieve MK mileage goals at home, on the whole all walking/ running for MK was implemented at the school-level. The primary ways in which respondents structured time for MK walking/ running goals was through PE class, classroom time, recess, lunch, and before/ after school programs. Additionally, some schools structured time for running through a combination of the avenues.

Many coordinators (PE teachers) from CPS implemented MK through their PE class. Typically, PE teachers incorporated walking and running for MK as an exercise warm-up before starting their class. A typical response as shared by Allie and Erika respectively was: *"Throughout the year when the kids come into PE, one of the first thing they do to warm up by running a few laps. We use all that to add up their mileage"*; and, "*The first thing they do is their laps. In my class we do walk, jog, run, skip and whoever the leader was got to choose the last lap (walk, jog, run, or skip). We start our PE class with that and we exceeded 26.2 miles by March".*

Similarly, LAUSD MK coordinators (classroom teachers) incorporated structured walking/ running time into their own daily class schedules either individually or even as an entire grade level team. Donna explained that her school, teachers implement the program on their own. She states, *"It's largely how the teachers want to do it with their own classes. I know some of the kindergartners they will run in the beginning of the day around the track a little bit. Some will do it in the afternoon".* Another LAUSD coordinator, Tameka, expressed a similar sentiment, *"It's all in the individual teacher. I personally take my students out every Monday, Wednesday, and Friday between 8 and 8:30 so it's the first thing they do".*

Recess was also an avenue for structured walking/ running time cited by both LAUSD and CPS coordinators. CPS coordinator, Alejandra, was able to structure time for her entire grade level, "*We ended up agreeing at the grade level to go down to recess early, at the same time every day, and we had them do their laps. So, all the kids were out there at the same time. We would go down to recess 5-10 minutes early before recess".* One CPS coordinator, Emily, structured time through both recess and after lunch. She responded, "*The teachers would make walking and running during lunch and recess available with me. So I started going into the gym at lunch and recess time so kids who wanted to walk or run, I kept track of who came in and how far they went".*

Before school and after school running and walking clubs were also reported as popular avenues for structured MK implementation time in both LAUSD and CPS schools. Darcy at LAUSD stated, "*We run after school every Tuesday and Friday. As soon as the parents pick up their kids and we close the gates, we run around the block multiple times. Each time around the block is according to Google maps 0.48 miles".* Kurt at LAUSD incorporated structured time in the morning as he shared, "*What ends up happening is that once you're in the classroom there's so much to do you run out of time at the end of the day. It seems to work best first thing in the morning. This is like 4 minutes before the bell rings. The students are already there. They line up and off we go".* Ted and Javier at CPS describe their after school program respectively, "we *have an after-school running/ walking program too. It lasts 1 hour and 15min, and they circle their mileage too,"* and "*We meet usually one day a week after school. We try as a group to do a mile each Monday, and they on their own try to get a half a mile. We walk around the school".*

Finally, it should be noted that both LAUSD and CPS each had a single coordinator that spoke of the institutionalization of structured walking/ running time at their school and touched on the underlying reasoning behind it. While several CPS PE teachers like Allie and Erika incorporated MK walking/ running as a warm-up, PE teacher Karina institutionalized MK walking/ running warm-ups by making it part of her curriculum and thus part of students' final grade. Karina explained, *"What happens is I implemented MK into part of my PE curriculum because my students have to run every day anyway. We start in the month of September. It's just our warm-up laps. In October, after the Kickoff at the end of September, they get their logging schedule. It's part of our curriculum every day. They run,*

and it's part of their grade". Katherine at LAUSD explained how the structured time became incorporated into her children's routine by stating:

> "*It tends to be for lower grades, 15 minutes before recess works the best. It's very automatic for the children. There's no complaining about it. That's just a normal part of your day when we go out to exercise and you go run. In the grade levels where it's done every day, the kids see that exercise should automatically be part of their day, and that' s really healthy. We're seeing that they get the message that exercise should be all the time, every day as opposed to occasionally finishing your math and the teacher tells you to go out."*

Ib. Mileage Log Tracking: As stated earlier, the vast majority of the Marathon Kids program is conducted on the campus-level in a structured format. Likewise, a majority of coordinators from both LAUSD and CPS tracked their students' mileage as a group at school in some form or fashion. The two methods cited include: 1) individual tracking in class with coordinator/ teacher supervision and 2) tracking mileage through posted display or bulletin boards. Individual mileage tracking by students was cited among coordinators, however only in CPS schools.

Javier at CPS found for his after-school program, tracking miles was a practical consideration. He stated, *"I keep them (mileage logs) here. If they take them home, they lose it or I'll never see them again. That's part of our Monday after-school. We record the mile we do and then if kids do it on their own, we record that also".* Another CPS PE teacher, Dollie, explained "I have a binder with all the MK logs in it, and then I let them go fill out their mileage any time during class. This is good and bad because a lot of them don't get to it because they forget". Be this as it may, Pati also enlisted the help of her classroom teachers to help track her students' mileage: "*We have 8 classes of 6th graders so what's worked best is once those 6th graders leave me I give the binder to the teachers and have them remind their students on a weekly basis to fill in their mileage logs. The student could go up to the binder, find his sheet, and just fill it in".*

LAUSD Coordinators expressed similar experiences to their CPS counterparts. Like Javier in Chicago, Darcy tracks her students' miles at the conclusion of their after-school program. She said, "*We track all their mileage when they run after school. We keep track of their laps and we keep an excel file because most of them lose their log. I tell the kids if you can make it to 72 laps than you'll get your t-shirt. The kids are always asking about how many laps they've done and how many they more they need".* While Lindsey also reported that her students tracked their miles immediately following their recess, she also expressed how students looked forward to it: *"We leave them in the classroom. And then when they come up [from running], it was like a big deal "okay, we all get to fill out our logs now." It was within each individual class room. We have them keep it [logs] in their desk".*

While many coordinators and teachers tracked mileage as a group, some took group tracking to another level by displaying their classes' mileage logs. These mileage logs were displayed in numerous

ways, such as in hallways, classrooms, and bulletin boards. Eve from CPS stated: "*I have really, really, really good classroom teacher support especially because they keep the sheets (mileage logs) in their room. They don't go home. Some of them post it on the walls. Some of them have it on the doors".* A resounding reason cited by coordinators for displaying their mileage logs centered on showing how far students had progressed as well as how far (or near) their mileage goal was. LAUSD coordinator, Roslyn simply stated, *"the teachers have a class wall that shows where the kids are and how they're progressing"* while Emily from CPS explained in more detail, "*They kept their progress on a chart in the classroom. So they knew exactly where they were all throughout the year. I thought the chart was great because every kid could see where they stood and what they had to do. I think that was pretty neat that the whole group did it"*. The most salient example of a coordinator displaying mileage logs came from Hillary, a CPS coordinator, who explained how her school chose to support MK through displaying mileage logs but with an extra bonus for their students:

> "*We decided as a faculty we wanted some kind of display so everyone could see the students improving. So we created an MK display with a 1mile club, 5mile club, 10mile club, all the way up to the 26.2 miles. So every time they completed 5miles, we took their picture and put it up in that specific mileage club. So we had a big display that went all year long".*

Lastly, it should be noted that there were a few CPS MK coordinators that encouraged their students to keep track of their mileage at home. Allie stated: "*They take their mileage sheets home and they're supposed to keep track of it at home. Whether or not they do that is up to them, I guess".* Allie did state that the previous year she tracked student mileage at school however: "*It just got way too hectic because I have a ton of kids". Allie did state, however, "For me I would love to have teachers keep up with their kids' logs. Like if after my class they could go back into their rooms and color their logs right then and there".* Harriet stated that "*they would be responsible for their own papers (logs)"* since she thought the mileage log would be an easy task. However, at the end of the year Harriet *reported she "I only collected 100 of them. I thought I would collect a lot more than that because there's more than that in 1st through 5th. I felt a little disappointed".*

"*They kept their progress on a chart in the classroom. ..I thought the chart was great because every kid could see where they stood and what they had to do. I think that was pretty neat that the whole group did it".*

Ic. Nutrition and Fuel Log Implementation: When broached on the topic of implementing Marathon Kids' nutritional component (fuel log/ fruits & veggies log), LAUSD and CPS coordinators' responses were mixed. Less than half the total sample (LAUSD n=7; CPS n=3) reported that they implemented the fuel log. Those coordinators that did not implement the fuel log cited numerous reasons for doing so. For instance, Darcy LAUSD commented on the over-simplicity of the fuel log in light of other nutritional forms offered at her school, "*the kids seem to ignore the fuel log. We have nutrition week and the kids are used to filling out more in-depth forms and a more thorough analysis of*

their nutritional habits". While other coordinators admitted they haven't found a good way to implement it at their school. *Roslyn (LAUSD) stated, "I don't monitor the fuel log. It just goes home. I haven't found a really good system to monitor that".* And Harriet (CPS) touched on the overall confusing aspects of the fuel log,

> "I *think it's (fuel log) is not really clear. Is it 26 days or how many months it takes the kids to finish a marathon? So if it takes 5 months would they fill it out every month? Or is it 1 shot, 26 days out of that entire time. It's not real clear what's supposed to be going on with that. Like every month would I hand out a new form and aim for 26 days".*

However a few coordinators who did not implement the fuel log did have ideas on how to implement it in the future. For example, Hillary (CPS) thought, "*One of things I thought of was to put a graph in our lunchroom and every time a child consumes a helping of a fruit or vegetable we'd add to it. And once we get to a certain goal we'd get some sort of reward. It's kind of something to work towards. I think we'll try having it in the cafeteria and see"*. Likewise, Althea (CPS) commented, *"I send the fruits and veggies log home, and we talk about it. But that's the hard one. I send that home and they try to do their best with that. They (students) are trying to eat healthier in the lunch room so maybe we can implement that (Fuel log) with the food manager"*. One suggestion from Emily (CPS) would be to incorporate the fuel log into a health class, "*Actually, we're trying to get health into more of the curriculum. I don't know if it's because we don't do health that the fuel log wasn't completed. It's really disappointing. We are developing the health curriculum, and maybe the fuel log could be a student project".*

Mirroring Emily' suggestion, LAUSD coordinators in particular found success implementing the Fuel log through a partnership with the Network for a Healthy California (CA) ("the Network"). The Network for a Healthy CA is a state program within the CA Department of Public Health. Their mission is "to create innovative partnerships that empower low-income Californians to increase fruit and vegetable consumption, physical activity and food security with the goal of preventing obesity and other diet-related chronic diseases". Specifically, LAUSD coordinator, Katherine, described the partnership between "the Network" and some LAUSD schools:

> *"It started in the LA area to bring nutrition education to the classroom. It asks teachers to give a certain amount of classroom teaching time to nutrition education. Teachers guarantee that they will do that, and the grant in turn provides finance for projects as well as Harvest of the Month, which is every single month they have farmer visits send a fruit or vegetable to the kids to taste in the hopes that it will encourage them to try new things for healthy eating".*

Katherine went on and spoke on how "the Network" and the MK fuel log worked together:

"It's [fuel log] a nice way for kids to monitor what they're doing. It does open up a dialogue about [FVC] and that's great. I think a lot of people like to use it as a tool for nutrition education and integrate it in [into "the Network's" curriculum]. We do nutrition education an hour a week and as long as we're giving a lesson on fruits and veggies, let's get the kids to track it at this time. I think that's more effective than if we were looking at it as a new tool because teachers never want to do anything extra."

Analogous comments were made by every coordinator who on how well both "the Network" and the MK fuel log worked together.

(Kurt) *"The fuel log works very well. We have to remind them to eat their colors every day. I'll go up to a kid, and say I notice you've got orange for orange, purple for grapes, and so what do you need for red? And he'll go 'oh, a red apple'. I have them do the fuel log in the morning so they can think about what they ate for breakfast and then, yeah, after lunch. It fits right in with what we're supposed to be teaching the kids. You're eating 5 a day and all your colors. It fits very well. The eat your colors is something the government pushes. It's easy to remember because even if you're teaching kindergarten, everyone knows their colors.*

Our school garden fits in with MK and the Network's nutrition program. I try to make everything flow. It fits in with eating your colors and understanding where your food comes from. After we run in the morning, we'll stop by the gardens to check out it's progress. It's a nice way to start our day".

"[The Fuel Log] is a nice way for kids to monitor what they're doing. It does open a dialogue about [FVC], and that's great."

(Sofia) *"We kept a journal in my room of what we ate for dinner and breakfast. The students really implement it themselves. The logs stayed with us in the classroom but as soon as we came in from wherever, lunch, the students had it in their folders and took it out. They were pretty responsible. The kids had an understanding of portion sizes [because of the Nutrition Network] so they couldn't just color in the whole fruit basket because they had an orange or something".*

(Jamie) *"At my school, because we're a Network for Healthy CA school, with the participating teachers, we provided every month, my school actually gets fresh produce, whether it was avocado, persimmons, or corn. That fuel log coincided with this. You were encouraged to cook or sample things with our class. I can't speak for the whole school but I do know the teachers on my floor were doing logs, trying to monitor the fruits and vegetables they were eating per day. Everything [MK and Network] kind of worked together. It was MK was the exercise part. The Network was the health/fruit and vegetable part working all together".*

(Marcie) *"The teachers use it in different forms. They get to color in how they… you know and through the program, Network for Healthy California whose emphasis is on fruits and vegetables. That's how we get the kids to color it in. In the primary grades, it helps reinforce counting by 5's. In the second grade, it helps with the multiplication. The Network helps facilitate the nutrition.*

How I have it in the room, they keep it with them. So it's something they can do in the classroom. On Mondays, they say what they ate and color it in. I talk to parents during meetings or when I get to see them or in my weekly letter that goes home that always has a reminded eat fruits and vegetables and go out for a walk".

Theme II: Additional Program Inputs

For some coordinators MK program implementation at the campus-level included more than adopting structured time for walking/ running goals and supervised group mileage tracking. These coordinators included celebratory events as additional program inputs at the campus-level. Specifically, these celebratory events came in the form of 1) MK t-shirt days and 2) school-based MK events.

Seven coordinators reported that they held special MK t-shirt days as a form of recognizing students who had met their 26.2 mile goal. Some coordinators like Donna (LAUSD) and Allie (CPS) distribute the t-shirts during a school assembly and allow their students to wear them that day. As Donna stated, *"After the kids get their shirts after assembly day they wear them so we recognize them that way"* and Allie commented, "*We hand out all the t-shirts on either the same day or the same week, and the kids are so excited to have them they put them on that day and walk around all day with them on. Of course, they wear them thereafter too".* Kurt (LAUSD) described in detail how this year's MK t-shirt day impacted the entire school:

"Just doing [Marathon Kids] was very unifying for my class…I have a lot of teachers who weren't in the program this year and want to be part of it next year. It's like a big celebration- to get the t-shirt and feel accomplishment."

"*My whole class wore their shirts, and it caused quite a stir at school. A lot of teachers said they want to do the program next year. They saw all the kids that participated. They were asking me questions about the program. Just doing that was very unifying for my class. We were all wearing the same colors. A lot of the other students were wondering what this was all about. They all wanted the shirt too, and I said hey you have to run a marathon. I have a lot of teachers who weren't in the program this year want to be part of it next year. It's like a big celebration- to get the shirt and feel accomplishment."*

Kurt went on to talk about how MK gives kids who aren't successful academically a chance to shine. He said,

> "*Sherman, one thing I did not expect- I had some students struggle academically. They don't get the attention they need. This was a chance to hold them up. They logged in the most miles. I gave them the shirts first because they almost ran 2 marathons. They gave extra effort and to single them out in school was something good for them. They were really beaming. Great runners, great soccer players who aren't doing so well academically but in PE they're shining stars".*

"…I had some students struggle academically. They didn't get the attention they need. [Marathon Kids] was a chance to hold them up."

Two coordinators even reported that in addition to promoting their students to wear their MK t-shirts, students would also wear their MK Final Mile medals to school. Eve (CPS) described her students, "*Some of them remember religiously to wear the medals and then they take it off during PE class and then put it back on after class. I like them to be proud of the stuff that they've earned (t-shirts and medals)."* Additionally, Roslyn (LAUSD) recounted, *"We do have a day when they wear their t-shirts. Make sure you wear your runner's shirt. So we do have one day for that. They get excited about that. The medals they only wear them the first couple of days because they could lose them. You know we take a group picture of them with their medals at school to celebrate them."*

One strategy to promote and recognize MK students and the program employed by Chicago PE teachers was to use the MK t-shirt as part of the school uniform. Harriet stated, "*Our school has to wear uniforms and so it was considered uniform if they wore their MK shirt. So they could wear their MK shirt, and it would count as school uniform. That was kind of cool".* Additionally, this practice helped promote the program in the past. Harriet explained, "n*ext year when they come back in September, and they're wearing these shirts, and the kids who didn't get them will be like 'Wow! he's out of uniform'. Well, he's not. They might strive for the following year to get that t-shirt".* While Eve also stated, "*they can wear their shirts to PE class too. I require a uniform and that's part of the uniform, the MK shirt",* but she also revealed that her students also pass their MK shirts down to younger siblings. Eve declared, "*Some of them do pass it down. I have seen a student who didn't get one cause they were too young suddenly appear in one. If you're keeping it long enough to pass it down to a younger sibling, you must like it. I think that's kind of cool. That makes the sibling want one of their own".*

Finally, only one coordinator, Darcy (LAUSD), stated that, in addition to the official MK t-shirt, she created a special MK t-shirt for her students that went above and beyond the MK program goals. She stated:

> "*We don't have a normal track so we just keep up with their laps. I tell the kids if you can make it to 72 laps than you'll get your t-shirt. In the end. The kids are always asking about*

how many laps they've done and how many they more they need. We have a100 lap shirt for the kids who really, really push themselves. We just paint our own t-shirts for those few kids."

While both CPS and LAUSD coordinators included MK t-shirt days, only LAUSD coordinators implemented school-based celebratory events. Usually, these events took place in the spring or end of the year. Last year Eve held a much larger celebratory event than this year, however she was able to recognize her students this year. She explained:

"This year we were so inundated with new programs. This year I gave out the t-shirts and teachers took pictures of their kids. And the kids got the medals. I made a big MK board in the office. So that's how we celebrated MK at the end. The kids were happy and excited to see their faces on the board. Some of their families are on the board. We take a lot of pictures. Last year all the kids got their t-shirts at an assembly and they ran a lap with their teachers while the rest of the rest of the school cheered and clapped. So we did that last year but nothing this year".

Recognizing a common complaint among her students attending the Final Mile event, Darcy organized her own end of the year, community event to showcase her MK students. Darcy stated:

"We take the little kids to the ceremonies but they're not too excited about that because the run a quarter mile once around the track. They're like 'wow it's over'. So this year we organized a little event for the little kids at our school but invited everyone from the community. We had it at Exhibition Park near USC. We did a 5k race with their families. We try to make it a family fitness day to benefit all the kids in MK. It was a great success. Parents donated snacks and water and the school loved it. So we're going to be doing it every year. We did get a lot of positive feedback from parents. They enjoyed that it was a community-building experience. It was a nice opportunity for parents to spend a Saturday and try to get fit. A lot of our parents send their kids out to exercise but they themselves don't a lot of exercise. A lot of teachers were happy to do that too because they had a resolution to get more exercise and they showed the kids that too."

Finally, Katherine described her end of the year event almost as a rite of passage for her MK students. Katherine illustrated:

"We hold our own Final Mile Celebration here. Those kids go out and they run their final lap. They get their t-shirts and we take their picture. We spray them with water or whatever fun thing we decide to do afterwards. It's amazing how motivating a little water is. We have them run their theoretical final lap, they put on their shirts and run another lap with their shirts. I think for the kids it's motivating because it's a celebration they're a part of. Everybody else has to feel bad because they don't have the shirt on all day and match."

Theme III: Program Barriers

While the previous two thematic categories focused on program implementation and support, the themes in this section explore barriers to program implementation. Specifically, barriers to implementation illustrated by respondents centered on a lack of support from teachers and administration.

IIIa. Lack of teacher support. Coordinators in both districts reported that teacher support, and thus student participation in MK overall, have been lacking at times. One of the most reported reasons for this lack of support was time or, more specifically, there wasn't enough time in the school day to support MK. Lorraine (LAUSD) shared*, "They have so many things to do and that sometimes they don't want to get involved with something different. Just one more thing for some of the teachers"*. Allie (CPS) echoed a similar opinion: "*I try to get teachers to get involved but their time is so limited so there isn't much buy in from them".* Dollie (CPS) lamented that even though her class size had increased, she still tried to follow up with teachers on mileage tracking, "f*or me to get to the homeroom on a weekly basis was almost impossible. The good teachers, the ones that were organized, and the ones who understood what we're trying to do, they would remind their kids. And the other ones who weren't like that would be like 'I totally forgot'."*

Marylou (LAUSD) suggested that not only did some teachers not have enough time, but they may not value exercise: *"I find that some people [teachers] do not find it worthwhile because they do not want to give up their time. They do not view the activity or being specifically active an important part of the day. So it's just changing that mindset".* And Tameka (LAUSD) echoed this too: *"I think it's more with the recruitment of teachers than students. Students are willing to move. I think it's harder to get teachers to move".* Katherine (LAUSD) recounted the situation at her school as well as her frustration in detail:

> *"At this point, about 50% of teachers participate every year. The others are just not interested. Either they implement their PE program differently or they feel there's not enough time during the day or whatever reason they have they're not joiners. We have half the campus participating and they participate every year and run with their kids. The other half doesn't seem to be interested in participating. We put it out year after year. Sometimes someone new will participate because they're changing grade levels or they get involved with a different group of teachers. It's certainly not everybody. You have the group that's interested and the group that never seems to get interested".*

IIIb. Lack of administration support. In addition to a lack of teacher support, lack of administration support was another barrier to MK program implementation for coordinators in both districts, but CPS coordinators in particular expressed frustration with their administrators.

This past school year (2010-11) was Tameka's (LAUSD) first year as an MK coordinator, and she admitted that her administration support was lacking, and as a result MK was a small program at her school. However, after this first year, Tameka would like to expand the program, but administration support was still lacking. She recounted:

> "I haven't had much support from administration. So it stayed small. I wanted it to stay small being it was my first year. I really didn't know much about the organization. Didn't want to go too big till I knew what the program was all about. As I got involved, now I get it. And now more teachers are willing to get involved but we don't have administration backing us up as much so I don't really know what's going to happen next year. So [MK is] not really school wide.
>
> If I could get my administrators to understand the importance of running or walking. I think that's a hard aspect when the administration doesn't do it themselves. It's hard to explain movement to someone who doesn't move. When they don't have that experience, they don't see the benefits in it".

"If I could get my administrators to understand the importance of running or walking… I think that's a hard aspect when the administration doesn't do it themselves. It's hard to explain movement to someone who doesn't move."

Javier (CPS), who implements MK as an after-school program revealed that his administration, surprisingly, does not support after-school programs in general and does not provide transportation for MK event attendance. Javier stated:

> *"Our administration, which is changing in a week, never supported us financially (for transportation). The classroom teachers support MK. They like seeing their kids involved. They may have seen some behavior improvements, but the administration really didn't support it. It's not anything against this program, but their attitude towards after-school programs is not very favorable as hard as that may sound or believe. We have never gone as a group (to the events). But if we could get a bus we can go as a group in not even a half hour. For them to go on their own, it's just not going to happen."*

Finally, Harriet's (CPS) interview revealed that her administration's lack of support for MK was also to blame for her teachers' lack of support. Harriet explained:

> "*We have a new administrator, and this is his 3rd year now. The big literacy push came last year. And now he's making even bigger push next year for literacy. There is definitely a barrier (administration). It makes it harder. I would like to expand the program, but I feel I'm stuck.*
>
> *And then what happens is that teachers don't support it either. We would do a quarter mile in our PE class, but I wanted them to do it at recess because the kids have recess. The kids go out with their teachers so it's not free for all recess. But the teachers just talked to each other, and the kids do what they want to do, and some where just standing around. So what I*

really wanted them to do was be able to walk around a specified trail and count that towards MK. That would be something very easy for them to do.

I did present this idea to the teachers, but they felt frustrated by the administration so then it got pushed aside. We had about 100 people finish it. But the possibility is there for a lot more kids to get involved. But again it needs to be pushed by the teachers. I only see them once a week. We don't have PE every day. We need help from the teachers basically."

There was however one instance of that illustrated how administrators can buy into and support the program. Dollie (CPS) revealed:

"With my AP I know I can start using him more. He just started running this year. He's in his 30s overweight and his doctor is like you're cholesterol and BP are too high. You need to start losing weight. So he's kind of gotten on the bandwagon recently".

IIIc. Barriers with Celebratory Events. A common barrier reported by both districts was that the event day for Kickoff and Final Mile, Saturday, was difficult to attend due to various athletics teams the participants and their families had committed to. As Eve (CPS) stated, "*… it's really sad knowing how many schools participate that don't attend the celebration. I tell people my kids have fun. I think part of that is it's on a Saturday. You wind up with a lot of people who won't or can't come out on a weekend".* A similar sentiment was shared by Kurt (LAUSD), "*It's hard to get students to go on a weekend because they have other events like soccer or baseball. It's difficult and we were also teaching Saturday school. It's really hard to get a good turnout for that".* For Eve (CPS) and James (CPS), limited weather conditions only served to compound the barrier of having the event on Saturday with the latter stating:

"*One problem is the final mile event. Usually in Chicago we have bad weather. When the weather gets nicer, we have the final mile. But we also have a lot of sports leagues at the same time and everyone's enrolled. And, it's not a good time for people to go to the finisher mile. I don't know how to fix that. We have to wait for nicer weather, but everyone else starts (other programs) too. It's a little bit tricky."*

Other reports to barriers with Saturday included familial commitments and one, Harriet (CPS), reported that communions were scheduled on Saturdays.

Transportation to the events was a barrier that seemed uniquely to CPS. As it was earlier stated by Javier (CPS), Harriet (CPS) also reported that their administration did not provide transportation:

"*They (events) weren't highly attended because we didn't have a bus. We're not that far away. We're not walking distance. They'd still have to get a ride from their parents or someone. Our principal wasn't going to pay for a bus. He doesn't even pay for a bus with our sports programs so the kids are on their own there too. So we had really low turnout."*

Not all reports from CPS explicitly stated that the poor or no transportation was all due in part from administration. Sue (CPS) explained, "*We did not go to either of them (events). We would have*

loved to, but for us it's a financial issue. Renting buses and getting up there. We have a very limited budget for that sort of thing so we did not go". In the case of Emily (CPS), the issue was that, *"Our parents are not real participators so no one went to the final mile".*

There were no reports in our interviews of transportation as a barrier for LAUSD due in no small part to Max (LAUSD), who secured a grant specifically for transportation for LAUSD. However, a uniquely reported barrier for LAUSD was the travel time to reach the event compounded with the events at the Final Mile leading up to the running event. Sofia (LAUSD), who included the heat as a factor, reported that their experience was, *"This past year, it was really, really hot and there was a lot of wait time"*. Sofia (LAUSD) goes on to further report that, *"This year was actually better than last year. They cut down on speeches… We were on time but it was a long time for all the students to wait"*. This barrier actually created another barrier for Marylou (LAUSD) who expressed, *"Those are 6 hour days for us. When I'm trying to get volunteers to help, that doesn't help <laughs>"*!

Eve (CPS), despite being able to secure transportation to the events, was only able to get 20% of 125 students to go to the events, "*A lot of kids want to go. Some of them sign up and don't go. They say mom wouldn't let me go at the last minute".* Eve (CPS) goes on to state, "*We encourage everybody to participate but you know there're some kids that the parent won't sign the form or the kid can't get the form back and forth".*

There was one coordinator who did not state any barriers with getting participation to the event. The barrier for Margery (LAUSD) was the contrary:

> *"There was an issue with who got to go the final mile medal ceremony. Every year we went to the Final Mile, the kids would run their laps and these are the kids who were supposed to finish the program. There were some kids there who were just supporting the finishers or didn't even do MK, but in the end everyone got a medal. It was very upsetting to the students and also the teachers. There was no accountability."*

Margery goes on to suggest:

> *"Maybe we should get our t-shirts first for our finishers. If you go the Final Mile, one of the stipulations should be you have to wear your t-shirt. So only the ones who have a t-shirt get a medal. Because it caused a lot of problems at my school. It is a reoccurring problem. I have to tell the parents please don't let them get a medal if they didn't earn it. The volunteers are great and they help a lot but they just see a kid and it's like here's your medal. Even little babies got a medal. Little 3 year olds got a medal. It really diminishes it especially for the older kids. It's like it almost doesn't matter because everyone who went got a medal."*

There was only one instance in which the coordinator reported that, in hindsight, they had contributed to their own low participation due to vague planning instructions they gave. Dollie (CPS) revealed:

"Getting them to the opening and closing ceremony at Hansen Stadium, which is really close to the school so you would think we have more kids going but I think because I don't have to organize a meeting when we're taking the bus, here's the information, just meet me over there and they can walk. I get a lot less students than other schools. You think we'd have more but it's just because we don't have a big group meeting and taking a bus. Hey you're on your own. Everyone knows where Hansen park is; meet me here at 9am, and I'm standing there wondering where everyone is. They're all sleeping."

Due to its unique situation, one school was not able to attend any of the events. This school is an alternative school for students diagnosed for emotional behavioral disorders (EBD). All schools in the district send their EBD students to this alternative school when they are not able to accommodate or are ill equipped to accommodate the student with this specific diagnosis. The coordinator explained, "We have eight bus loads coming in from all over the city. To be very honest, communication with family and parents is very poor in our school". The coordinator further revealed that:

"See, the only problem I have is that I can't go too, because of my school and the way the situation is when they are at their beginning and their final finale, I really can't get my kids there because that means the parents have to drop them at my school and sometimes the school is far from where they live. A lot of these parents don't have any way to take them except for bus. For me, I feel bad that I can't be there."

IIId. Lack of Parent Support. A majority of the reports did not explicitly state parents had absolutely no involvement, rather, the coordinator desired an increase in parent involvement. One report from Tameka (LAUSD) states, *"A couple of parents, mainly first grade parents, weren't too keen on it 'cause they thought kids can't run. So a lot of our first grade parents didn't want to do it and they didn't sign up for it".*

There were parents whose engagement in MK mirrored their engagement in regular school activities. Such as the case with Althea (CPS) as he stated, "*The parent participation is low. You have to understand we're in an area where sometimes the parents don't even pick up their kids' report card".* This is also reflected in previous a comment from Emily (CPS) about parents participating in a MK event. Returning forms and failure to commit attendance of events were also reported.

"The parent participation is low. You have to understand- we're in an area where sometimes the parents don't even pick up their kids' report card."

(Harriet) "*But it doesn't really matter which weekend if they switched it because you'll have other parents that would say they couldn't go because of this or this… We have a hard time for parents to volunteer for anything."*

(Hillary) *"We had a permission form with parents responding that they were going and they didn't."*

(Sue) "The most difficult thing, sounds funny, was getting the parents to return the permission slips. It's such an easy thing but people don't follow through. That was probably the most difficult thing of the whole program, which in the big picture was not difficult at all. Just chasing after them, reminder emails, notes going home."

Theme IV: Perceived Benefits

The most perceived benefits from our respondents were in regards to physical health and physical activity. All respondents stated that the participants had an increased self awareness in physical health and physical activity as a result of participating in MK. As Marylou (LAUSD) recounted, *"I've notice that my children have health on their radar. They talk about fitness. They talk about healthy eating. Not that they necessarily do the right thing all the time but it is definitely on their radar".* For Allie (CPS), the benefits of becoming more aware of physical activity and physical health are more relevant for her population:

"I think encouraging kids to get up and get moving and introduce races and marathons and healthy eating, everything that the program promotes, especially at such a young age, is exactly when they need to be introduced to. Introducing them to being active and eating healthy is important for the demographic we're dealing with."

"Introducing [our students] to being active and eating healthy is important for the demographic we're dealing with."

Katherine (LAUSD):
"In the grade levels where it's done every day, the kids see that exercise should automatically be part of their day, and that's really healthy. We're seeing that they get the message that exercise should be all the time, every day as opposed to occasionally finishing your math and the teacher tells you to go out."

Our respondents also reported perceived benefits in character development though mostly in self-esteem, self confidence, and self pride.

(Kurt, LAUSD) "*I'm telling you it caused a big stir to see all these classes wear their shirts. They even wore the MK shirt under their uniforms. It shows you how interested they were in the program and how happy they were. To get the shirt and feel accomplishment."*

"And they learn about setting a goal 'Oh, 26 miles. I could never do it.' Then at the end it's like 'look at what you did.' That's your goal and you accomplished it. You accomplished it."

For Margery (LAUSD), the importance of being able to set long term goals :

"And they learn about setting a goal. 'Oh, 26 miles. I could never do it.' Then at the end it's like 'look at what you did'. That's your goal and you accomplished it. You accomplished it. You can set any goal and accomplish anything. Don't let

anything hold you back. You only set yourself back. So there's a mental reward as well. I guess they're internally driven. They're more internally driven. It's like they say they're never good at math. Well, you didn't think you could do MK and that's a huge accomplishment. You can. You just have to work at it. I think it really resonates with them. There's a sense of pride. It's a little elitist for those who finish it, those who celebrate it. You're a Marathon Kid. Those kids who aren't though will tell me or tell their teacher, "next year I'm going to be a Marathon Kid too".

Due to the ease and organization of the Kickoff and Final Mile, these events create easy occasions for family outings:

(Eve, CPS) "My parents are a quiet group. I think they like their kids can get out and do stuff, like with the celebrations. Parents that are active come with us on the bus. A group of parents sign up and go on every trip. They bring their kids. They drive their car or get on the bus. They're enthusiastic. Like they might have a preschooler and ask if they can come too."

(Darcy, LAUSD) *We did get a lot of positive feedback from parents. They enjoyed that it was a community-building experience. It was a nice opportunity for parents to spend a Saturday and try to get fit. A lot of our parents send their kids out to exercise but they themselves don't a lot of exercise. A lot of teachers were happy to do that too because they had a resolution to get more exercise and they showed the kids that too.*

For Javier (CPS), MK at his school creates a reliably safe environment to engage in physical activity as well as being able to socialize:

"Getting back with our neighborhood, there's not many opportunities for these kids to do anything after school. So it's a safe environment. A lot of our kids are obese or overweight and have a lack of a social life also. This is a good little group or club for them to socialize. We have parents that just like their kids to have something do after-school."

As Harriet (CPS) reports, the act of running or walking for MK requires little to no extra equipment:

"I feel that anyone can run. Kids are natural born runners or walkers. If they don't want to run, they can walk. That's something you can carry on for the rest of your life. You don't need any special equipment. You don't need a special place. How simple. Basketball you need special shoes. You need special equipment. You need to play in a certain place. Tennis you have to have equipment and a court. I just feel like this is really easy as far as maintaining fitness for the rest of your life."

For smaller schools, especially those in low socioeconomic status neighborhoods, free programs such as MK is an incalculable benefit as Eve (CPS) shared:

"I hate to say it, but it's free! That's always of course a big draw. I'm in a lower socio-economic neighborhood. It's a very Latino community. We have a lot of people come over from Mexico.

It doesn't have a lot of money to spend. I've had programs I've wanted to bring in, but it's like no we don't have funds for that. We're a small school. We get state money based on the number of students. So a smaller school means less money. So we really like that it's a free program. The kids are learning about health and physical activity."

And finally, Max (LAUSD) reports that a tertiary benefit in participating in MK allows teachers to get firsthand experience in the practical application of previous research:

"The biggest thing we've been able to motivate with the new research that's really resonating about how physical activity helps learning. That's related to scheduling stuff right after the kids run. So using that as preparation before you teach your subjects. That's really resonated because those classroom teachers are pressured to get their scores up. If it helps them do that, they'll get involved in it."

"…So using [Marathon Kids] as preparation before you teach your subjects. That's really resonated because those classroom teachers are pressured to get their scores up. If it helps them do that, they'll get involved."

Summary

Qualitative data analysis of twenty-five semi-structured, in-depth telephone interviews revealed several insights into how the Marathon Kids program is implemented and facilitated in schools in Los Angeles, CA. and Chicago, IL:

- Setting for MK Activities: All interview respondents reported that the majority of walking/ running occurred through structured time at school either through PE class, during classroom time, or through after/ before-school programs.
    - While some of the coordinators did allow students to accumulate mileage outside of school, it was never promoted as a major avenue for program implementation. In fact, the physical activity adviser (Max) for LAUSD recommended in their MK implementation plan that the program be implemented through PE/ classroom teachers.

- Institutionalization of MK: Some coordinators commented on how they've essentially institutionalized MK at their school by, for example making the PE running/ walking warm-ups as MK structured time part of the classroom curriculum, which is also part of the student's grade. A LAUSD coordinator has commented on how her students have been ingrained to automatically know that walking/ running will be done first thing in class, which further touches on institutionalization of MK.
    - *Opportunities for further institutionalization:* While not widely reported among either districts, special school-based events such as MK t-shirt days or school/ community-based MK kick-off/ final mile events were reported. These school-based events serve two main

purposes. First and foremost, they serve to recognize the achievements of MK finisher students in front of their entire school. Second, these events help promote MK to the rest of the student as well as the teacher population. Coordinators reported that non-participating students have, upon seeing their fellow classmates in MK t-shirts and medals honored by the school, resolved to become a Marathon Kid next year.

- Mileage Log: Also of importance is that the majority of coordinators tracked mileage in a group setting either by 1) supervised individual tracking or 2) tracking posted on display boards. Again, mileage tracking at home was not widely cited.

- Fuel Log: The nutrition component and fuel log was found to have been implemented by less than 50% of the coordinators. What is striking is that the 7 schools in LAUSD that implemented the fuel log did so in collaboration with an existing health and nutrition program called The Network for a Healthy California. By and large, these LAUSD coordinators stated that Marathon Kids and The Network for a Healthy California were very complimentary. Marathon Kids focused more so on physical activity and exercise while The Network for a Health California provides health and nutrition lessons, which for these coordinators was a perfect place to implement the fuel log.

- Barriers to Implementation: Unsurprisingly, the major barriers to program implementation cited by coordinators was both teacher and administration support. A lack of teacher support and participation was reportedly due to a lack of time on the teacher's part as well as some teachers having an attitude of not wanting to do any additional work. Administrators were cited to be unsupportive on extracurricular activities over academics and standardized testing. What's potentially most unsettling is the possible affect that an unsupportive administration has on overall MK participation from both the student and teacher population, which was the case for Harriet (PE-CPS). Again, her circumstance centered on her desire to structure time for MK through both PE and recess, however the administration did not support her and as a result neither did the teachers, leading to a low completion rate at her school. While this was only reported in one school, it is a potential issue that may negatively affect schools with low administrative support.

- Benefits of Marathon Kids: Themes that emerged around benefits focused primarily on the physical health benefits of Marathon Kids. However, several other notable benefits were discussed, including the importance of MK in promoting goal setting and a feeling of accomplishment among children, the potential for MK to unify a given class and school, the community-building nature of the program, the free nature of the program- which is well received, especially in lower income communities, and the academic benefits as related to the impact of physical activity on learning.

- Best practices: Several best practices were mentioned, including tailoring of MK to schools through school-based celebratory events, group tracking of goals, and partnership with groups that have common goals, such as Network for a Healthy California.

Discussion & Recommendations

This study evaluated Marathon Kids' enhanced strategies to promote fruit and vegetable consumption in low-income elementary school children in central Texas as well as the implementation of Marathon Kids in Chicago, Illinois and Los Angeles, California. We found significant effects of both the regular and enhanced program conditions on children's fruit and vegetable consumption. First, fourth and fifth grade students who attended schools in the Sprouting Healthy Marathon Kids condition- a condition which promoted school and community organizing along with combined program activities from Marathon Kids and Sustainable Foods Center- consumed significantly more fruit and vegetables a day compared to children attending a regular and customary Marathon Kids condition. Second, children in the enhanced Marathon Kids condition, which consisted of a revised fruit and vegetable tracking log, fun food facts, and group tracking, reported significant increases in fruit and vegetable consumption at lunch compared to children in the regular Marathon Kids condition. Lastly, children in all three conditions- regular, enhanced, and SHMK- reported modest yet significant increases in FV snack consumption between baseline and the last month prior to the Final Mile Run (February 2011). These findings underscore the effectiveness of enhanced Marathon Kids strategies for promoting FVC as well as enhanced and regular strategies in promoting FV snack consumption in lower income elementary school children.

Several positive findings were also noted for the implementation of Marathon Kids in Chicago and Los Angeles. Based on findings from an online survey and in-depth interviews, we found a high level of support and satisfaction with the Marathon Kids program as well as a generally high level of implementation and reach of Marathon Kids programmatic activities. Three out of four respondents from Chicago and Los Angeles indicated that their schools had structured more time for children to walk and run during the school day as part of the Marathon Kids program. Increased opportunities for walking and running were structured primarily during PE and physical activity class time, but notably one of five respondents indicated that their schools also structured time during recess, in the morning, and after school. Participation in Marathon Kids' core activities was high, including participation in the celebratory events and supporting students with tracking of miles. These findings highlight the direct impact of Marathon Kids in serving as a catalyst for structuring more time for physical activity during the school day and facilitating greater social support for physical activity among school faculty.

Qualitative findings provided rich insights into the implementation of Marathon Kids in the marquee cities, including the value of partnerships with groups such as *Network for a Healthy California* for promoting Marathon Kids' Fuel log, the barriers and best practices for implementing Marathon Kids, and the benefits for participating in the program as perceived by the MK coordinators. Areas for potential improvement based on the interviews and online survey include further promotion of fruit and vegetable tracking, in which roughly one in five respondents indicated students did not

participate, as well as implementation of school gardens. The following section highlights key lessons learned and recommendations for enhancing Marathon Kids' program delivery.

1. Disseminate best practice strategies for promoting student FVC: Although findings from the marquee city evaluation study indicated some action around fruit and vegetable promotion, this component of the program received less attention and lower student participation than the physical activity efforts- a finding highlighted by both the online survey and in-depth interviews as well as the original evaluation study carried out by the authors in 2008-2009. Recognizing this opportunity for further program enhancement, both the FVC pilot study in Austin and marquee city evaluation study offer important insights about best practices that may enhance FVC.

   Evaluation findings of the pilot study in 17 Austin schools indicated that 'wrapping the community around schools' via community and school organizing that involved parents, community leaders, and school faculty resulted in an average ¼ cup more of FVC among students. An increase by a ¼ cup of FV holds important implications at the population level, given that Marathon Kids now reaches >210,000 students on an annual basis [personal communication with Marinda Reynolds, National Programs Director- Marathon Kids). We also noted a significant increase in FVC at lunch in the enhanced condition as well as increases in FVC as a snack across all conditions, although increases were more modest. These findings underscore both the feasibility of enhanced efforts (e.g., implementation of an enhanced food log, daily fun food facts, group tracking, and school and community organizing efforts) and effectiveness of these efforts in increasing FVC in children.

   Furthermore, both the marquee evaluation and pilot study highlighted the potential role of partnerships with existing local nutrition efforts for incorporating and promoting Marathon Kids' FVC activities. In Los Angeles, for example, the Fuel Log is being incorporated into the Network for a Healthy California. Similarly, the *Sprouting Healthy Marathon Kids* model builds off the experience of Sustainable Foods Center in promoting FVC, a partnership which resulted in significant FVC increases. These findings underscore the potential for enhancing Marathon Kids' FV promotion efforts via strategic partnerships.

   Another key lesson learned worth noting was that the increased effects on FVC observed at time 3 (February) for the SHMK tended to decrease at three-month post-test (May). This finding provides some support for ecological perspectives of health behavior (Sallis & Owen, 1997) that posit that behavior is directly shaped by one's social context, including the social environment, built environment, information environment, and policy environment. As such, it is possible that when environmental influences decrease- such as reduced promotion of FV via teacher support and FV tracking- children's behavior will return to baseline levels. This finding underscores the importance of incorporating promotion strategies throughout the school year.

2. Identify, develop, and disseminate a "best practices guide" to participating schools. Given the range of best practices identified by study participants, we recommend Marathon Kids explore the development and dissemination of a "best practices guide" to elementary schools in participating cities. This would entail gathering and synthesizing best practices and lessons learned from a

variety of sources (previous research and MK coordinator testimonies) in order to identify a broad range of strategies to ultimately enhance the success of program implementation at the school, home, and community levels. Based on our findings, implementation and institutionalization of Marathon Kids at each campus may be enhanced by:

a. *Incorporating walking and running as part of the curriculum of PE, classroom activity time, and after-school program.* Given that many coordinators and their respective classroom teachers are already structuring time for walking/ running goals, we suggest schools take this practice one step further and label this time as part of Marathon Kids. Over time, students will come to associate these activities as part of the Marathon Kids program.

b. *Encouraging group tracking and display boards for tracking miles.* We have learned that group tracking and displaying mileage logs has promoted solidarity amongst MK participants as well as constant cues to action for physical activity and FVC goal-setting.

c. *Promoting MK school-based events, such as the MK t-shirt days and school "Kick off"/ "Final mile" celebrations.* For those coordinators that report holding these events, they are quite adamant that their students highly value being recognized amongst their peers and the entire school. These events also serve to promote MK amongst non-participants and in some cases have even been the catalyst for non-participants to endeavor to join MK next year. Finally, this strategy may be especially meaningful for those schools that cannot make MK Event attendance and know they will have low attendance at official MK Events.

d. *Gathering, synthesizing and disseminating the growing body of literature on the relationship between physical activity and increased academic performance.* As our LAUSD physical education advisor revealed, there is a growing interest in the connection between physical activity and academic achievement. Coupled with the MK coordinator accounts that some administrators don't support the program due to testing priorities, this literature may provide the means to build administrator support for Marathon Kids on their campus.

e. *Exploring the establishment of partnerships with local or state-level nutrition initiatives that can complement Food Log goals*: As noted above, we found the partnership between MK and The Network for Healthy CA quite promising for complementing each others' activities and enhancing FVC in children. Further efforts to identify and partner with local fruit and vegetable promotion efforts through which the Food Log and school gardens can be promoted may enhance program efforts.

3. <u>Explore further strategies for increasing parent participation:</u> While some schools indicated that students completed their tracking logs and Marathon Kids' goals both at home and at school, a common theme from the qualitative interviews was that most of students completed their MK goals at school- a theme we also noted in the first Marathon Kids evaluation. Recognizing the challenges of parent participation, one first step may be to increase communication between Marathon Kids and parents and/or schools and parents. Findings from the Los Angeles and Chicago

study indicated that under a third of parents were sent reminder notices about Marathon Kids during the school year, which represents a potential opportunity for increased communication.

4. Explore further opportunities for enhancing leadership of Marathon Kids at the school level, such as establishment of an MK steering committee or linking MK efforts with school wellness teams. In exploring this recommendation, we should first note that school faculty overall were very positive in their assessment of the support they are receiving from Marathon Kids staff in Austin. While the majority of respondents from Los Angeles and Chicago indicated that Marathon Kids is part of their schools' wellness plan, just under a third reported that Marathon Kids is not an official part of their wellness plans or efforts. Furthermore, one in five respondents expressed interest in more training on the program. Given the positive findings from the Austin study related to organizing of parents, faculty and community leaders with school wellness teams, a more specific focus on connecting Marathon Kids with school wellness teams may reap additional benefits in terms of strengthened communication and coordination of program efforts with teachers, parents, administrators and community leaders, increased 'institutionalization' of the program within the school, and ideally increased impact on program outcomes. Lastly, connecting MK with the wellness team may alleviate some of the responsibility, time, and effort from the main MK coordinator.

5. Increase promotion of water consumption with children, parents and school faculty. No statistically significant increases in water consumption were observed in any of the conditions for the Austin study (Aim 1). Marathon Kids may consider enhancing messaging around water consumption as a healthy beverage given its health benefits and potential to displace soda consumption. Interestingly, while soda consumption tended to decrease for Marathon Kids regular and SHMK conditions, soda consumption increased for children in the enhanced condition. As soda consumption increases as children get older, it is possible that the enhanced condition reflected current trends in soda consumption in children.

Strengths and Limitations

Findings from the Austin-based study (Aim 1) are based on a nonequivalent comparison group design in which schools were matched to existing intervention (SHMK) schools. Because schools were not randomized to condition, we cannot rule out the internal validity threat of *selection* in which prior differences between study groups may affect the study outcomes. In addressing this threat to validity, we attempted to match the schools to the extent possible on school composition of economically disadvantaged students and then controlled in the analysis for a range of student characteristics (individual and school SES, BMI, gender, ethnicity and age) with the aim of creating comparable study groups. Our primary fruit and vegetable measures were based on self-report, which may be prone to social desirability bias in which children over-estimate their fruit and vegetable consumption. In reducing this potential threat, we employed measures of FVC found to have evidence of reliability and validity (Hoelscher et al., 2003; Penkilo et al., 2008). Strengths of the study include a relatively high cohort response rate of our study sample from baseline to posttest; the measurement of 4th and 5th grade children at four time points during the school year- which provides a more stable estimate of

fruit and vegetable consumption; and the inclusion of multiple measures and methods of assessment for both study aims, including self-administered questionnaires with students, parents, teachers and MK coordinators, height and weight measures, and in-depth interviews with key stakeholders.

Conclusion

This study aimed to evaluate the effect of enhanced strategies for fruit and vegetable promotion in elementary school students as well as the implementation of Marathon Kids in two marquee cities: Los Angeles, California and Chicago, Illinois. Our findings underscore the added benefit of increased school/community organizing for the promotion of children's FV. Modest yet significant increases in FV snack consumption across conditions as well as increased FV at lunch in the enhanced condition provide general support for MK's FV tracking log approach. The high satisfaction for Marathon Kids and generally high level of MK implementation in Los Angeles and Chicago indicate that Marathon Kids is strongly embraced by schools outside of Texas and point to increased opportunities for children's physical activity during the school day. While specific opportunities were identified for fine-tuning or enhancing the program model- such as further parent outreach as well as the promise of partnership with nutrition-oriented organizations for enhancing efforts, findings from this evaluation provide further evidence on the effectiveness of Marathon Kids school and community model for promoting children's health.

Acknowledgements

This evaluation study was made possible thanks to a generous grant from the Michael & Susan Dell Foundation under the leadership and exceptional direction of our project officer, Dr. Aliya Hussaini. Tina Simms, MSW, was the initial project coordinator for this evaluation project who deserves great recognition for her organization of the evaluation protocols and establishment of the evaluation with project schools. Rachel Donnelly, undergraduate student at UT, provided helpful review of the final manuscript. We are also grateful for the strong support and collaborative spirit of several key individuals, including Kay Morris, Marinda Reynolds, and Rebecca McIlwain – the Marathon Kids team who developed and implemented the program activities and who facilitated communication with key district leaders in Chicago, Los Angeles, and Austin for the implementation of the evaluation; Ronda Rutledge and Andrew Smiley from the Sustainable Foods Center- who contributed great knowledge, skill and experience in school-led fruit and vegetable promotion to the project and who collaborated directly with Marathon Kids in implementing program strategies in the SHMK condition; Chad Fenwick from Los Angeles Unified School District and Calvin Davis from Chicago Public Schools- who played a critical role in facilitating the evaluation, as well as all school faculty who participated in the evaluation in Los Angeles and Chicago. Last but definitely not least, we are thankful for the school teachers and PE specialists in Austin who supported and led program efforts in their respective schools and who tirelessly lead the charge in advancing the health and development of their students.

References

Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance--2007. MMWR Surveill Summ. 2008 Jun 6;57(4):1-131.

Crocker PR, Bailey DA, Faulkner RA, Kowalski KC, McGrath R. Measuring general levels of physical activity: preliminary evidence for the Physical Activity Questionnaire for Older Children. *Med Sci Sports Exerc*. 1997;29:1344–1349.

Hearn MD, Baranowski T, Baranowski JC, Doyle C, Smith M, Lin L. Environmental influences on dietary behavior among children: availability and accessibility of fruits and vegetable consumption. *Journal of Health Education* 1998;29:26-32.

Hoelscher DM, et al., SIP 15 Evaluation Measures. University of Texas School of Public Health-Austin Regional Campus. (In preparation).

Hoelscher DM, Day RS, Kelder SH, Ward JL: Reproducibility and validity of the secondary level School Based Nutrition Monitoring student questionnaire. *J Am Diet Assoc* 2003; 103 (2): 186-94.

Hoelscher DM, Day RS, Lee ES, Frankowski RF, Kelder SH, Ward JL, Scheurer ME: Measuring the prevalence of overweight in Texas schoolchildren. *Am J Public Health* 2004; 94 (6): 1002-08.

Janz KF, Lutuchy EM, Wenthe P, Levy SM. Measuring Activity in Children and Adolescents Using Self-Report: PAQ-C and PAQ-A. Medicine & Science in Sports & Exercise 2008; 767-772.

Kowalski KC, Crocker PR, Faulkner RA. Validation of the Physical Activity Questionnairefor Older Children. *Pediatr Exerc Sci*. 1997;9:174–186.

Kratt P, Reynolds K, Shewchuk R. The role of availability as a moderator of family fruit and vegetable consumption. *Health Educ Behav* 2000 August;27(4):471-82.

Lorson BA, Melgar-Quinonez HR, Taylor CA. Correlates of fruit and vegetable intakes in US children. Journal of the American Dietetic Association 2009; 109(3): 474-478.

Neumark-Sztainer D, Wall M, Perry C, Story M. Correlates of fruit and vegetable intake among adolescents: Findings from Project EAT. Preventive Medicine 2003; 37: 198-208.

Penkilo M, Hoelscher DM, George GC: Reproducibility of the School-Based Nutrition Monitoring questionnaire among fourth grade students in Texas. *J Nutr Educ Behav* 2008; 40 (1): 20-27.

Sallis JF, Buono MJ, Roby JJ, Micale FG, Nelson JA. Seven-day recall and other physical activity self-reports in children and adolescents. *Med Sci Sports Exerc.* 1993; 25:99-108.

Sallis JF, Owen N. Ecological Models. In: Glanz K, Lewis FM, Rimer BK, eds. *Health behavior and health education: theory, research, and practice.* 2nd Ed. San Francisco, CA: Jossey-Bass Inc: 1997:403-424.

Springer AE, Kelder SK, Ranjit N, Hochberg-Garrett H, Chow S, Delk J, Pomeroy M, Chow M, Allen R. Evaluation of Marathon Kids: Final Report. University of Texas School of Public Health-Austin. Submitted to Michael & Susan Dell Foundation, September 16, 2009.

Springer AE, Kelder SH, Ranjit N, Hochberg-Garrett H, Chow S, Delk J. Promoting physical activity and fruit and vegetable consumption through a community-school partnership: the effects of Marathon Kids® on low-income elementary school children in Texas. (*Journal of Physical Activity and Health*, In press*).*

Troiano R, Berrigan D, Dodd K, et al. "Physical Activity in the United States Measured by Accelerometer." *Medicine & Science in Sports & Exercise* 2008; 40(1): 181–188.

U.S. Department of Agriculture, Food and Nutrition Service, Office of Research Nutrition and Analysis. *Increasing Fruit and Vegetable Consumption through the USDA Nutrition Assistance Programs*. March 2008. Available online at: http://www.fns.usda.gov/ora/MENU/Published/NutritionEducation/Files/fruit_veggie_report.pdf

Appendix A
Revised Log

Appendix B
Study Instruments

1. Active Kids-Healthy Kids Student Questionnaire
2. Active Kids-Healthy Kids Project Marathon Kids Classroom Teacher Questionnaire
3. Active Kids-Healthy Kids Marathon Kids Coordinator Survey
4. Marquee City Marathon Kids Stakeholder Interview Schedule

Appendix C
Results from Student Survey

Table 1. Descriptive characteristics of **baseline** sample. *Marathon Kids Phase II*- Austin, Texas, October 2010.

	Total	Basic	Enhanced	SHMK	p-value
Number of Schools	17	7	5	5	
Number of Students	484	204	169	111	
Percent Gender					
Female	55.0	51.5	53.3	64.0	0.089
Male	45.0	48.5	46.7	36.0	
Percent Grade					
4th	50.2	43.6	68.0	35.1	< 0.000
5th	49.8	56.4	32.0	64.9	
Percent Ethnicity					
African-American	13.0	11.3	10.1	20.7	
Hispanic	72.7	74.5	77.5	62.2	0.039
White	3.1	4.4	2.4	1.8	
Other[a]	11.2	9.8	10.1	15.3	
Mean SES					
School[b]	94.9	94.6	94.7	95.9	<0.001
Individual[c]	4.9	4.8	4.9	5.1	0.299

[a]Other includes American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, and Other.

[b]Based on Texas Education Agency "school composition of economically disadvantaged students".

[c]Family Affluence Scale includes: Family computers, Own bedroom, Family car, and Vacation travel (scale 0 to 7)

Table 2a. Results from regression analyses comparing wave 1 (baseline) with wave 3 (February 2011). Fourth and fifth grade elementary school students (n=484) attending elemtnary schools (n=17) in Austin, Texas. Marathon Kids Evaluation, 2011.

		Wave 1	Wave 3	Wave 1 - Wave 3 differences			Difference in W3-W1 deltas		
		Estimate (SE)	*Estimate (SE)*	*Estimate*	*(SE)*	*p-value*			
Condition 1	PrevFruit	1.78 (0.07)	1.80 (0.07)	-0.02	0.09	*0.788*			
	PrevVeggies	1.53 (0.08)	1.43 (0.08)	0.09	0.10	*0.340*			
	PrevFV	3.31(0.12)	3.23 (0.13)	0.07	0.16	*0.651*			
	NewHmFV	3.25(0.06)	3.32(0.06)	-0.06	0.08	*0.399*			
	NewSchFV	3.14(0.06)	3.02(0.06)	0.12	0.08	*0.114*			
	prevfvsnack	1.18(0.07)	1.39(0.07)	-0.21	0.09	*0.024*			
	soda	1.13(0.10)	1.14(0.10)	-0.001	0.12	*0.992*			
	water	2.24(0.09)	2.25(0.09)	-0.01	0.12	*0.939*			
							Condition 2 vs Condition 1		
							Estimate	*(SE)*	*p-value*
Condition 2	PrevFruit	1.77 (0.08)	1.80 (0.08)	-0.03	0.10	*0.789*	0.003	0.14	*0.9839*
	PrevVeggies	1.53 (0.09)	1.50 (0.09)	0.02	0.11	*0.816*	0.07	0.14	*0.6388*
	PrevFV	3.29(0.14)	3.30 (0.14)	-0.009	0.17	*0.961*	0.08	0.23	*0.7317*
	NewHmFV	3.34(0.07)	3.40(0.07)	-0.05	0.08	*0.517*	-0.01	0.11	*0.9334*
	NewSchFV	3.08(0.07)	3.20(0.07)	-0.13	0.09	*0.141*	0.25	0.12	*0.0322*
	prevfvsnack	1.15(0.08)	1.38(0.08)	-0.23	0.10	*0.021*	0.03	0.14	*0.8500*
	soda	0.79(0.11)	1.06(0.11)	-0.27	0.13	*0.034*	0.40	0.17	*0.0219*
	water	2.09(0.11)	2.15(0.11)	-0.07	0.13	*0.599*	-0.02	0.17	*0.9309*
							Condition 3 vs Condition 1		
							Estimate	*(SE)*	*p-value*
Condition 3	PrevFruit	1.75(0.10)	2.15(0.10)	-0.40	0.13	*0.001*	0.38	0.16	*0.0155*
	PrevVeggies	1.57 (0.10)	1.64(0.10)	-0.07	0.13	*0.668*	0.16	0.16	*0.3219*
	PrevFV	3.33 (0.16)	3.79(0.16)	-0.47	0.22	0.031	0.54	0.27	*0.0443*
	NewHmFV	3.32(0.08)	3.35(0.08)	-0.03	0.11	*0.792*	-0.04	0.13	*0.7771*
	NewSchFV	3.07(0.08)	3.09(0.08)	-0.02	0.11	*0.859*	0.14	0.13	*0.2833*
	prevfvsnack	1.17(0.10)	1.49(0.10)	-0.33	0.13	*0.009*	0.12	0.16	0.4400
	soda	1.20(0.13)	0.96(0.13)	0.25	0.16	*0.120*	-0.12	0.20	*0.5370*
	water	2.10(0.13)	2.07(0.13)	0.03	0.16	*0.857*	-0.11	0.20	*0.5727*

Estimates obtained from repeated measures regression, controlling for sex, grade, ethnicity, BMI, school SES, individual SES, and a time-by-treatment interaction

Highlight indicates statistical significance.

Table 2b. Results from regression analyses comparing wave 1 (baseline) with wave 4 (April/May: posttest). Fourth and fifth grade elementary school students (n=484) attending elemtnary schools (n=17) in Austin, Texas. Marathon Kids Evaluation, 2011.

		Wave 1	Wave 4	Wave 1 - Wave 4 differences			Difference in W4-W1 deltas between		
		Estimate (SE)	*Estimate (SE)*	*Estimate*	*SE*	*p-value*			
Condition 1	PrevFruit	1.78 (0.07)	1.84(0.07)	-0.06	*0.09*	0.506			
	PrevVeggies	1.53 (0.08)	1.30(0.08)	0.23	*0.10*	0.020			
	PrevFV	3.31(0.12)	3.14(0.12)	0.17	*0.16*	0.290			
	NewHmFV	3.25(0.06)	3.32(0.06)	-0.07	*0.08*	0.369			
	NewSchFV	3.14(0.06)	3.09(0.06)	0.05	*0.08*	0.535			
	prevfvsnack	1.19(0.07)	1.36(0.07)	-0.18	*0.09*	0.053			
							Condition 2 vs Condition 1		
							Estimate	*(SE)*	*p-value*
Condition 2	PrevFruit	1.77 (0.08)	1.78(0.08)	-0.004	*0.10*	0.970	-0.06	0.14	*0.6754*
	PrevVeggies	1.53 (0.09)	1.31(0.08)	0.21	*0.11*	0.046	0.01	0.14	*0.9398*
	PrevFV	3.29(0.14)	3.09(0.14)	0.21	*0.17*	0.236	-0.04	0.23	*0.8649*
	NewHmFV	3.34(0.07)	3.37(0.07)	-0.02	*0.08*	0.771	-0.04	0.11	*0.7004*
	NewSchFV	3.08(0.07)	3.16(0.07)	-0.09	*0.09*	0.317	0.13	0.12	*0.2472*
	prevfvsnack	1.15(0.08)	1.29(0.08)	-0.13	*0.10*	0.183	-0.04	0.14	*0.7541*
							Condition 3 vs Condition 1		
							Estimate	*(SE)*	*p-value*
Condition 3	PrevFruit	1.75(0.10)	1.84(0.10)	-0.08	*0.13*	0.501	0.02	0.16	*0.8804*
	PrevVeggies	1.57 (0.10)	1.47(0.10)	0.10	*0.13*	0.454	0.13	0.16	*0.4457*
	PrevFV	3.33 (0.16)	3.30(0.16)	0.02	*0.22*	0.918	0.14	0.27	*0.5895*
	NewHmFV	3.32(0.08)	3.46(0.08)	-0.14	*0.11*	0.194	0.07	0.13	*0.6017*
	NewSchFV	3.07(0.08)	3.24(0.08)	-0.17	*0.11*	0.122	0.21	0.13	*0.1062*
	prevfvsnack	1.15(0.10)	1.37(0.10)	-0.22	*0.13*	0.080	0.04	0.16	*0.7790*

Estimates obtained from repeated measures regression, controlling for sex, grade, ethnicity, BMI, school SES, individual SES, and a time-by-treatment interaction

Highlight indicates statistical significance. *Soda and water not included in wave 4 survey.

Table 3. Psycho-social outcome results from regression analyses comparing wave 1 (baseline) with wave 3 (February 2011).
Fourth and fifth grade elementary school students (n=484) attending elementary schools (n=17) in Austin, Texas. MK Evaluation Study, 2011.

		Wave 1	**Wave 3**	**Wave 1 - Wave 3**			**Difference in W3-W1 deltas**		
		Estimate (SE)	*Estimate (SE)*	*Estimate*	*(SE)*	*p-value*			
Condition 1	taste preference	7.89(0.21)	7.81(0.21)	0.08	0.24	*0.735*			
	self-efficacy	14.66(0.42)	15.69(0.43)	-0.13	0.49	*0.038*			
	outcome expectations	14.94(0.45)	15.08(0.46)	-0.14	0.52	*0.792*			
	teacher support	20.29(0.61)	18.16(0.62)	2.12	0.71	*0.003*			
	parent support	16.97(0.35)	17.29(0.36)	-0.33	0.41	*0.424*			
	availability	14.05(0.41)	15.12(0.41)	-1.07	0.48	*0.026*			
	accessibility	5.71(0.15)	5.94(0.16)	-0.23	0.18	*0.202*			
							Condition 2 vs Condition 1		
							Estimate	*(SE)*	*p-value*
Condition 2	taste preference	7.77(0.23)	7.79(0.23)	-0.02	0.26	*0.926*	0.11	0.36	*0.7664*
	self-efficacy	14.22(0.47)	15.10(0.48)	-0.88	0.54	*0.104*	-0.15	0.73	*0.8405*
	outcome expectations	15.12(0.50)	15.42(0.51)	-0.30	0.57	*0.601*	0.16	0.78	*0.8349*
	teacher support	19.10(0.68)	17.13(0.69)	1.96	0.78	*0.012*	0.16	1.05	*0.8764*
	parent support	17.23(0.39)	17.14(0.40)	0.09	0.45	*0.835*	-0.42	0.61	*0.4886*
	availability	14.06(0.45)	14.18(0.46)	-0.12	0.52	*0.822*	-0.95	0.71	*0.1805*
	accessibility	6.02(0.17)	5.91(0.17)	0.11	0.2	*0.571*	-0.34	0.27	*0.2017*
							Condition 3 vs Condition 1		
							Estimate	*(SE)*	*p-value*
Condition 3	taste preference	8.34(0.26)	8.62(0.27)	-0.28	0.33	*0.393*	0.36	0.41	*0.3733*
	self-efficacy	15.33(0.54)	15.86(0.55)	-0.53	0.67	*0.431*	-0.50	0.83	*0.5500*
	outcome expectations	15.54(0.57)	15.94(0.58)	-0.40	0.71	*0.574*	0.26	0.89	*0.7661*
	teacher support	19.57(0.78)	18.78(0.79)	0.79	0.97	*0.416*	1.34	1.20	*0.2654*
	parent support	16.99(0.45)	16.86(0.46)	0.13	0.56	*0.816*	-0.46	0.69	*0.5084*
	availability	14.10(0.52)	13.82(0.53)	0.28	0.65	*0.667*	-1.34	0.80	*0.0952*
	accessibility	5.77(0.20)	5.64(0.20)	0.13	0.24	*0.597*	-0.36	0.30	*0.2372*

Estimates obtained from repeated measures regression, controlling for sex, grade, ethnicity, BMI, school SES, individual SES, and a time-by-treatment interaction
Highlight indicates statistical significance.

Table 4. Participation in Marathon Kids among 4th and 5th grade students in 17 participating schools.
Marathon Kids Evaluation Project Phase II- Spring 2011.

	Participating	How often filled out Food Log?				How often filled out Mileage Log?			
	in MK	Do Not Log/Haven't Started	Every Day	Once A week	A few times	Do Not Log/Haven't Started	Every Day	Once A week	A few times
	%	%	%	%	%	%	%	%	%
Total Sample (n=484)	64.3	40.4	25.7	16	17.9	34.7	30.7	17.2	17.4
Girls	61.0	43	28.5	14.1	14.5	37.5	30.1	16.8	15.6
Boys	67.1	37.4	22.4	18.2	22	31.5	31.5	17.6	19.4
Regular MK (n=204)	61.1	44.3*	21.9*	17.9*	15.9*	39.6*	25.9*	16.8*	17.8*
Enhanced MK (n=169)	65.4	32.5*	29.5*	13.9*	24.1*	26.9*	35.9*	15.6*	21.6*
SHMK (n=111)	68.3	45.6*	27.2*	15.5*	11.7*	38.0*	31.5*	20.4*	10.2*

Data collection dates: February 2011. Abbreviations: MK, Marathon Kids

p value: *<.05; **=.01; ***<.001

[a]Low-income classified as >60% school composition of economically disadvantaged students based on Texas Education Agency data for 2010.

[b]Includes 4th and 5th grade students from 17 AISD schools.

Table 5. Participation in Marathon Kids fruit and vegetable activities among 4th and 5th grade students (n=17 schools).

Marathon Kids Evaluation Project Phase II- Spring 2011.

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	Received help to track FV			Helped grow a garden at	Learned about	Did taste-testing	Parent attended
	Classroom Teacher	PE Teacher	Parent/ Guardian	school this year?	FV this year?	this year at school?	cooking class
	% Yes	% Yes	% Yes	% Yes	% Yes a little	% Yes	% Yes
Total Sample (n= 484)	63.6	89.1	86.4	37.1	49.1	61.1	14.5
Regular MK (n=204)	55.0**	86.6	85.9	40.9***	52.2	57.7	14.9
Enhanced MK (n=169)	74.4**	89.4	84.6	23.9***	45.1	59	12
SHMK (n=111)	62.2**	93.2	89.9	50.5***	49.5	70.8	17.8

Data collection date: February 2011

p value: *<.05; **=.01; ***<.001

[a]Low-income classified as >60% school composition of economically disadvantaged students based on Texas Education Agency data for 2010.

Table 6. Participation in Marathon Kids among 4th and 5th grade students in 17 participating schools.
Marathon Kids Evaluation Project Phase II- Spring 2011.

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	Received help to track miles			At school, given time to walk or run around track/schoolyard?
	Classroom Teacher % Yes	PE Teacher % Yes	Parent/Guardian % Yes	%Yes
Total Sample	59	81.9	65.3	89.3
Regular MK (n=204)	53.3	77.5	60.5	93.3
Enhanced MK (n=169)	64.3	83.6	68.3	87.8
SHMK (n=111)	61.0	87.3	69.4	84.2

Data collection date: February 2011

p value: *<.05; **=.01; ***<.001

[a]Low-income classified as >60% school composition of economically disadvantaged students based on Texas Education Agency data for 2010.

Appendix D

Results from Marathon Kids Coordinator & Teacher Survey
Central Texas Elementary Schools: *Fruit & Vegetable Pilot Study: Aim 1*

Table 1. Coordinator and Teacher Demographics, MK Coordinator & Teacher Survey, Austin-Spring 2011.

	Coordinators	Teachers
	n	n
Total Responses	13	46
Basic	5	23
Enhanced	4	14
Enhanced +	4	9
Sex		
Male	3	8
Female	10	38
Position		
4th Grade Teacher	-	26
5th Grade Teacher	-	20
PE Teacher	13	-
Years in Current Position		
Average	12.69	5.26
Range	1-26	1-41

Table 2. Coordinator and Teacher Satisfaction with Marathon Kids Program at their school, MK Coordinator & Teacher Survey, Spring 2011

	Marathon Kids Contributes To Child Health & Fitness		Children Enjoy Marathon Kids		Marathon Kids Important Part of CSHP		Participate in Marathon Kids Again		Recommends Marathon Kids	
	N	%	N	%	N	%	N	%	N	%
Coordinators										
Disagree	1	8	1	8	1	8	1	8	1	8
Neutral	1	8	0	0	0	0	0	0	0	0
Agree	11	85	12	92	12	92	12	92	12	92
Teachers										
Disagree	2	4	2	4	4	9	2	4	2	4
Neutral	2	4	1	2	4	9	2	4	0	0
Agree	39	85	40	87	35	76	39	85	41	89

Table 3. Percentage of Schools that Implemented Walking & Running Support Activities, MK Coordinator Survey, Austin- Spring 2011.

	Track Miles with PE Teacher		Track Miles with Classroom Teacher		Display Mileage Logs in Gym		Display Mileage Logs in Classroom		Participate in Kick Off/Final Mile Events		Provided Transport for Kick Off/Final Mile Events		School Event to Recognize MK Participation		Other	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	9	69	12	92	4	31	8	62	11	85	10	77	4	31	2	15
Basic	4	80	5	100	1	20	3	60	5	100	4	80	3	60	0	0
Enhanced	2	50	3	75	2	50	3	75	3	75	3	75	0	0	0	0
Enhanced+	3	75	4	100	1	25	2	50	3	75	3	75	1	25	2	50

Table 4. Percentage of Schools that Implemented Fruit & Vegetable Support Activities, MK Coordinator Survey, Austin- Spring 2011.

	Track Fuel with PE Teacher		Track Fuel with Classroom Teacher		Display Fuel Logs in Gym		Display Fuel Logs in Classroom		Classroom Teachers Encourage FV Intake Before Lunch		Teachers Read Fun Food Facts of the Day		Other	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	5	38	9	69	3	23	6	46	7	54	6	46	2	15
Basic	3	60	3	60	1	20	2	40	3	60	2	40	1	20
Enhanced	1	25	3	75	2	50	2	50	2	50	2	50	0	0
Enhanced+	1	25	3	75	0	0	2	50	2	50	2	50	1	25

Table 5. How Often Teachers Implemented Marathon Kids Support Activities, MK Classroom Teacher Survey, Austin-Spring 2011.

	Track Miles		Track Fuel		Encourage FV Intake Before Lunch		Read Fun Food Facts of the Day	
	N	%	N	%	N	%	N	%
Daily	9	20	2	4	21	46	6	13
Weekly	10	22	8	17	11	24	8	17
Monthly	17	37	15	33	6	13	12	26
Rarely or Never	9	20	20	44	6	13	18	39

Table 6. Percentage of Schools that Structure Time for Marathon Kids Walking and Running Goals, MK Coordinator Survey, 2011.

	Recess Time		PE Class		Before School		Lunch Time		After School		Other	
	N	%	N	%	N	%	N	%	N	%	N	%
Total	12	92	9	69	2	15	1	8	2	15	2	15
Basic	5	100	3	60	0	0	1	20	1	20	2	40
Enhanced	3	75	3	75	1	25	0	0	1	25	0	0
Enhanced+	4	100	3	75	1	25	0	0	0	0	0	0

Table 7. Percentage of Teachers that Structure Time for Marathon Kids Walking and Running Goals, MK Teacher Survey, Spring 2011.

	Recess Time		Class Time		Before School		Lunch Time		Other	
	N	%	N	%	N	%	N	%	N	%
Total	39	85	3	6	3	6	3	6	8	17
Basic	20	87	1	4	1	4	2	9	3	13
Enhanced	11	79	1	7	1	7	0	0	2	14
Enhanced+	8	89	1	11	1	11	1	11	3	33

Table 8. Percentage of Schools that Participated in Marathon Kids-Related Activities, MK Coordinator Survey.

	Farm to School		TasteTasting With Local Famer		Taste Testing With No Famer		Parent Walking Club		Parent Cooking Classes		Student-only Vegetable Garden		Community Vegetable Garden		Field Trips		Other	
	N	%	N	%	N	%	N	%	N	%								
Total	4	31	1	8	7	54	8	62	6	46	9	69	4	31	6	46	1	8
Basic	1	20	0	0	3	60	4	80	0	0	3	60	0	0	4	80	1	20
Enhanced	1	25	0	0	1	25	2	50	2	50	3	75	2	50	2	50	0	0
Enhanced+	2	50	1	25	3	75	2	50	4	100	3	75	2	50	0	0	0	0

Table 9. Percentage of Teachers that Participated in Marathon Kids-Related Activities, MK Teacher Survey, Spring 2011.

	Display Mileage Logs in Classroom		Display Fuel Logs in Classroom		Attend the Kick Off/Final Mile Events		Attend School Marathon Kids Event		Other	
	N	%	N	%	N	%	N	%	N	%
Total	19	41	12	26	5	11	28	61	34	74
Basic	5	22	4	17	2	9	16	70	18	78
Enhanced	9	64	6	43	2	14	7	50	9	64
Enhanced+	5	56	2	22	1	11	5	56	7	78

Appendix E:
Results from Marathon Kids Parent Survey

Table 1. Demographic characteristics of parent sample. *Marathon Kids Evaluation Project,* 2010-11.

	Wave 1					Wave 3					wave 1-wave3 (p-value**)		
	MK Basic	MK Enhanced	SHMK[a]	p-value*	Total Sample	MK Basic	MK Enhanced	SHMK[a]	p-value*	Total Sample	MK Basic	MK Enhanced	SHMK[a]
n of parents (Total)	173	188	170		531	108	117	101		326			
Age in years (mean, SD)	36.31 (8.54)	34.93 (6.39)	34.35 (6.32)	0.059	35.21 (7.18)	35.64 (8.54)	34.81 (5.98)	35.40 (7.00)	0.685	35.27 (6.56)	0.510	0.877	0.263
Gender: % Female	85.71	82.87	79.88	0.370	82.85	91.18	86.61	83.84	0.289	87.22	0.184	0.393	0.424
Ethnicity (%)													
Hispanic	78.05	80.43	68.71	**0.000***	75.93	83.17	88.29	73.20	0.114	81.88	0.803	0.236	0.398
African American	14.02	8.70	27.61		16.44	11.88	7.21	20.62		12.94			
White	6.10	8.15	3.07		5.87	3.96	2.70	4.12		3.56			
Other	1.83	2.72	0.61		1.76	0.99	1.80	2.06		1.62			
Language use with parents													
English (%)	34.34	31.84	46.79	**0.012***	37.33	26.26	21.30	44.68	**0.001***	30.23	0.170	0.054	0.745
Spanish (%)	65.66	68.16	53.21		62.67	73.74	78.70	55.32		69.77			
Relationship with child													
Mother	89.09	88.20	84.18	0.064	87.23	94.06	88.29	85.15	0.185	89.14	0.427	0.540	0.960
Father	8.48	11.80	12.03		10.78	4.95	10.81	10.89		8.95			
Guardian/Other	2.42	0.00	3.80		2.00	0.99	0.90	3.96		1.92			
Educational Level													
8th grade or less	19.74	19.89	20.83	0.809	20.09	22.22	24.04	20.88	0.872	22.45	0.397	0.135	0.313
Some high school	21.05	22.16	27.50		23.21	26.26	23.08	19.78		23.13			
High school graduate/GI	28.95	29.55	28.33		29.02	33.33	36.54	38.46		36.05			
Some college	19.08	19.89	12.50		17.63	12.12	11.54	16.48		13.27			
4-year college graduate	5.26	5.68	5.00		5.36	4.04	0.96	2.20		2.38			
>4 years of college	5.92	2.84	5.83		4.69	2.02	3.85	2.20		2.72			
Total monthly household income													
$0-999	41.51	37.21	33.33	0.339	37.67	45.16	34.91	39.13	0.145	39.52	0.995	0.078	0.945
$1000-1999	44.03	42.44	40.65		42.51	41.94	46.23	34.78		41.24			
$2000-2999	7.55	6.98	11.38		8.37	7.53	14.15	10.87		11.00			
$3000-3999	3.14	8.14	5.69		5.73	2.15	1.89	5.43		3.09			
$4000-4999	1.89	1.16	3.25		1.98	1.08	0.00	4.35		1.72			
$5000 or more	1.89	4.07	5.69		3.74	2.15	2.83	5.43		3.44			

[a] Sprouting Health Marathon Kids (SHMK), MK-Marathon Kids

* p-value for significance testing across the three categories as a whole; (anova for continous variables & chi-square/ Fischers exact test for categorical variables)

** p-value for significance testing between waves 1 and 3; (ttest for continous variables & chi-square/ Fischers exact test for categorical variables)

Table 2. Parrent Fruit and Vegetable consumption, Behavioral/Social support for Fruit/Vegetable consumption and Physical Activty. Parent Survey, Marathon Kids Evaluation Project,2010-11

	Wave 1					Wave 3					wave 1-wave3 (p-value**)		
	MK Basic	MK Enhanced	SHMK	p-value*	Total Sample	MK Basic	MK Enhanced	SHMK	p-value*	Total Sample	MK Basic	MK Enhanced	SHMK[a]
n of parents (Total)	173	188	170		531	108	117	101		326			
How many serving of fruits do you eat on a regular day? (Mean)	2.34	2.28	2.28	0.831	2.30	2.54	2.59	2.49	0.819	2.54	0.168	**0.010****	0.141
How many serving of vegetables do you eat on a regular day? (Mean)	2.25	2.17	2.34	0.378	2.25	2.40	2.26	2.40	0.622	2.35	0.341	0.444	0.704
Social support for PA[a] (total) (q9)	23.13	23.31	23.67	0.419	23.37	23.01	23.59	23.36	0.499	23.33	0.801	0.507	0.538
I want my child to exercise or be physically active	4.54	4.56	4.59	0.806	4.56	4.46	4.58	4.61	0.255	4.55	0.398	0.780	0.821
Exercise with my child	3.02	3.01	3.08	0.707	3.04	3.13	3.09	3.07	0.875	3.10	0.260	0.427	0.976
Encourage my child to do sports or exercise	4.11	4.17	4.26	0.274	4.18	4.11	4.28	4.18	0.342	4.19	0.990	0.274	0.489
Watch my child when they exercise and give them feedback on what they are doing	3.62	3.61	3.60	0.979	3.61	3.56	3.66	3.57	0.745	3.60	0.645	0.692	0.857
Spend time teaching my child how to play a sport or do a physical activity	3.19	3.15	3.27	0.521	3.20	3.10	3.17	3.20	0.794	3.16	0.502	0.855	0.629
Am proud of my child when they exercise	4.65	4.72	4.78	0.181	4.72	4.67	4.75	4.79	0.319	4.74	0.839	0.666	0.843
Social support for fruit & vegetable consumption[b] (total) (q8)	20.50	20.41	20.61	0.813	20.50	20.47	20.46	20.86	0.526	20.59	0.928	0.862	0.519
I eat fruits and vegetables	3.82	3.73	3.80	0.507	3.78	3.83	3.78	3.74	0.712	3.78	0.968	0.594	0.570
I want my child to eat fruits and vegetables	4.45	4.54	4.52	0.447	4.50	4.51	4.54	4.54	0.956	4.53	0.437	0.986	0.870
I give my child fuits and vegetables to eat	3.88	3.90	4.02	0.227	3.93	3.88	3.90	4.04	0.298	3.94	0.940	0.991	0.835
I encourage my child to eat fruits and vegetables	4.40	4.35	4.35	0.741	4.37	4.35	4.33	4.48	0.298	4.38	0.577	0.781	0.155
I prepare meals with fresh fruit and vegetables for my family	3.94	3.88	3.98	0.572	3.93	3.87	3.93	4.02	0.421	3.94	0.476	0.608	0.692

Abbreviations: MK, Marathon Kids; SHMK Sprouting Health Marathon Kids; n, number; PE, Physical Education; F/V, Fruit/Vegetable; N/A, Not Applicable.

* represents results that are statistically significant. (anova for continous variables & chi-square/ Fischers exact test for categorical variables); (Chi-square test performed across categories as a whole (not item by item)).

[a]Composite variable based on 6 items that measured encouragement of child to be physically active, observation and direct participation in physical activity with child, "proud of my child when they exercise."
Score ranges from 6 (lowest) to 30 (highest) points.

[b]Composite variable based on 5 items that measured encouragement for fruit and vegetable consumption, eating fruits and vegetables, preparing meals and provision of fruit and vegetables to child. Score: 5 (lowest) to 25 (highest).

** p-value for significance testing between waves 1 and 3; (ttest for continous variables & chi-square/ Fischers exact test for categorical variables)

Table 3. Home fruit and vegetable availability.
Parent Survey, Marathon Kids Evaluation Project,2010-11

	Wave 1					Wave 3					wave 1-wave3 (p-value**)		
	MK Basic	MK Enhanced	SHMK	p-value*	Total Sample	MK Basic	MK Enhanced	SHMK	p-value*	Total Sample	MK Basic	MK Enhanced	SHMK[a]
n of parents (Total)	173	188	170		531	108	117	101		326			
Availability in past one week[a] (q10 a-i)													
100 % fruit juice	2.62	2.71	2.64	0.565	2.66	2.65	2.72	2.83	0.313	2.73	0.764	0.906	0.087
Vegetable juice	1.76	1.82	1.95	0.168	1.84	2.07	1.84	2.05	0.145	1.98	**0.010****	0.842	0.421
Fresh fruit	3.10	3.18	2.96	0.090	3.08	2.96	3.15	3.21	0.107	3.11	0.222	0.810	**0.037****
Canned, frozen or dried frui	2.20	2.21	2.24	0.933	2.21	2.06	2.25	2.41	**0.029***	2.24	0.264	0.715	0.169
Fresh vegetables	2.89	2.81	2.82	0.720	2.84	2.77	2.94	3.04	0.118	2.92	0.328	0.264	0.067
Canned or frozen vegetable	2.47	2.25	2.51	**0.049***	2.40	2.23	2.27	2.63	**0.007***	2.36	0.058	0.874	0.381
Salad	2.51	2.56	2.51	0.837	2.53	2.60	2.51	2.68	0.364	2.59	0.391	0.632	0.135
Fresh fruit in an easy-to-rea	3.14	3.40	3.23	**0.014***	3.26	3.16	3.38	3.46	**0.021***	3.33	0.830	0.840	**0.017****
reach place													
Cut up fresh vegeatables in	2.59	2.69	2.71	0.477	2.66	2.80	2.79	3.03	0.107	2.87	0.078	0.382	**0.005****
in ea													

Abbreviations: MK, Marathon Kids; SHMK Sprouting Health Marathon Kids; n, number; PE, Physical Education; F/V, Fruit/Vegetable; N/A, Not Applicable.

* represents results that are statistically significant. (anova for continous variables & chi-square/ Fischers exact test for categorical variables)

(Chi-square test performed across categories as a whole (not item by item)).

[a]Mean score based on 4 point Likert response scale - 1 (Never) 2 (Some of the time) 3 (Most of the time) 4 (All the time)

** p-value for significance testing between waves 1 and 3

(ttest for continous variables & chi-square/ Fischers exact test for categorical variables)

Table 4. Family eating and meal preparation habits
Parent Survey, Marathon Kids Evaluation Project,2010-11

	Wave 1					Wave 3					wave 1-wave3 (p-value**)		
	MK Basic	MK Enhanced	SHMK	p-value*	Total Sample	MK Basic	MK Enhanced	SHMK	p-value*	Total Sample	MK Basic	MK Enhanced	SHMK[a]
n of parents (Total)	173	188	170		531	108	117	101		326			
How often do you and your family have dinner together? (mean/wk)	5.73	5.46	5.62	0.366	5.60	5.79	5.54	5.87	0.342	5.72	0.788	0.696	0.228
In the past 7 days													
How often did your child eat at a fast food restaurant? (mean)	1.04	1.13	1.47	**0.007***	1.21	1.07	0.96	1.52	**0.004***	1.17	0.855	0.197	0.797
How often did you prepare meals with fresh fruit and vegetables for family? (mean)	4.10	3.92	4.05	0.686	4.02	3.99	4.01	4.37	0.269	4.11	0.662	0.702	0.182
How often did your child help prepare meals? (mean)	1.86	1.73	1.93	0.622	1.84	2.21	2.11	2.11	0.916	2.14	0.171	0.077	0.485
Do you grow your own fruits and vegetables? (q13)													
Yes, currently (%)	13.61	7.65	12.20	0.457	11.05	22.12	9.65	10.31	0.059	13.97	0.090	0.246	0.831
Yes, in the past (%)	8.28	8.20	7.32		7.95	3.85	3.51	6.19		4.44			
Attended classes that taught growing fruits/ vegetables in last 5 months (%)	6.40	2.70	11.52	**0.004***	6.70	6.73	0.85	4.08	0.057	3.76	0.913	0.411	0.039
If Yes, how many (Mean)	3.50	3.60	4.29	0.741	3.93	3.50	1.00	4.67	0.285	3.63	0.999	-	0.911
Attended cooking classes in last 5 months (%)	7.02	4.89	5.42	0.674	5.76	5.66	6.09	5.10	0.953	5.64	0.656	0.655	0.829
If Yes, how many (Mean)	4.00	2.33	4.38	0.299	3.71	6.33	3.50	5.75	0.240	4.85	0.370	0.330	0.406

Abbreviations: MK, Marathon Kids; SHMK Sprouting Health Marathon Kids; n, number; PE, Physical Education; F/V, Fruit/Vegetable; N/A, Not Applicable.

* represents results that are statistically significant. (anova for continous variables & chi-square/ Fischers exact test for categorical variables)

(Chi-square test performed across categories as a whole (not item by item)).

** p-value for significance testing between waves 1 and 3; (ttest for continous variables & chi-square/ Fischers exact test for categorical variables)

Table 5. Participation in Marathon Kids, Student and Parent Walking and Running,
Parent Survey, Marathon Kids Evaluation Project,2010-11

	Wave 1					Wave 3					wave 1-wave3 (p-value**)		
	MK Basic	MK Enhanced	SHMK	p-value*	Total Sample	MK Basic	MK Enhanced	SHMK	p-value*	Total Sample	MK Basic	MK Enhanced	SHMK[a]
n of parents (Total)	173	188	170		531	108	117	101		326			
Signed up child to participate[a]													
Yes (%)	69.94	69.71	59.12	0.128	66.40	63.37	59.82	53.13	0.440	58.90	0.460	0.157	0.525
No, I chose not to (%)	20.25	20.57	23.90		21.53	26.73	30.36	30.21		29.13			
No, never rec'd info. (%)	9.82	9.71	16.98		12.07	9.90	9.82	16.67		11.97			
Is your child participating													
in MK this year? ,Yes (%)	59.76	61.45	48.77	0.075	56.83	51.46	50.88	46.88	0.637	49.84	0.283	0.194	0.855
No (%)	26.83	25.14	29.01		26.93	35.92	33.33	32.29		33.87			
I don't know (%)	13.41	13.41	22.22		16.24	12.62	15.79	20.83		16.29			
Did you receive any written messages about F/V consumption this year													
Yes, 1-2 messages (%)	39.16	42.13	29.75	**0.028***	37.25	50.98	47.83	39.13	0.156	46.28	**0.024****	0.168	0.070
Yes, 3 or more messages (%)	6.02	3.37	1.90		3.78	10.78	6.96	5.43		7.77			
Past 7 day mean times ***child:***													
Ran/Jogged (q21a)	3.18	3.13	3.12	0.971	3.14	3.32	3.23	3.16	0.877	3.24	0.613	0.705	0.893
Walked for exercise (q21b)	3.51	3.10	3.54	0.141	3.37	3.58	3.05	3.33	0.212	3.31	0.798	0.835	0.465
Participated in sports, dance or any other PA (q21c)	3.25	3.21	3.14	0.921	3.20	3.27	3.02	3.27	0.650	3.18	0.943	0.504	0.652
Past 7 day parent:													
Walked, jogged, or run for 20 minutes (q22) (mean days)	3.22	2.87	3.17	0.302	3.08	3.10	2.74	3.23	0.205	3.00	0.671	0.581	0.843
Participated in Vigorous PA (q23) (mean days)	2.63	2.34	2.57	0.450	2.51	2.43	2.42	2.74	0.462	2.52	0.463	0.765	0.535
Mean number of days in past week, parent or another adult walked or ran with child (q24) (mean days)	2.48	2.28	2.49	0.561	2.41	2.55	2.22	2.41	0.456	2.39	0.772	0.811	0.744
Mean number of days in past week, parent or another adult took child to participate in PA (q25) (mean days)	2.12	2.18	2.21	0.932	2.17	2.36	1.97	2.34	0.280	2.21	0.399	0.349	0.603

Abbreviations: MK, Marathon Kids; SHMK Sprouting Health Marathon Kids; n, number; PE, Physical Education; F/V, Fruit/Vegetable; N/A, Not Applicable.

* represents results that are statistically significant. (anova for continous variables & chi-square/ Fischers exact test for categorical variables)

(Chi-square test performed across categories as a whole (not item by item)). aSample size and grade level percentages based on the variable "Is your child participating in MK program this year?" for the given time period (i.e., T1 Participating, T2 Participating, etc.). ** p-value for significance testing between waves 1 and 3. (ttest for continous variables & chi-square/ Fischers exact test for categorical variables)

Appendix F

Marathon Kids Marquee City Coordinator Survey

Table 1. Sample size and response rates, *Marathon Kids School Coordinator Survey-Marathon Kids Evaluation Phase II Project,* Spring 2011.

	MK Participating Elementary Schools in the District	Participants Invited	Respondents	Response Rate[a]
	n	n	n	%
School District				
Chicago Public Schools (CPS)	27	27	25	92.59
Los Angeles Unified School District (LAUSD)	97	97	71	73.2
Total Schools	*124*	*124*	*96*	*77.42*

[a]Response rate represents number of respondents divided by number of participants invited.

Table 2. Demographic characteristics of respondents, Marathon Kids School Coordinator Survey- *Marathon Kids Evaluation Project,* Spring 2011.

	Total Sample (n = 96)	CPS (n = 25)	LAUSD (n = 71)	p-value*
Classification of school composition of economically disadvantaged students (%)				
0 to 25%	7.69	9.52	7.14	0.720
26 to 50%	7.69	14.29	5.71	0.196
51 to 75%	20.88	28.57	18.57	0.323
76% or more	63.74	47.62	68.57	0.080
Gender of respondent (% Female)	84.62	80.95	85.71	0.596
What is the majority ethnic composition of your school? (%)				
African American	12.09	52.38	0.00	**0.000**
Hispanic/Latino	78.02	42.86	88.57	**0.000**
White	5.49	0.00	7.14	0.208
Other majority ethnic	1.10	0.00	1.43	0.582
No one majority ethnic	3.30	4.76	2.86	0.668
What is your current position ? (%)		.		
PE teacher	20.88	76.19	4.29	**0.000**
Classroom teacher	69.23	14.29	85.71	**0.000**
School administrator	1.10	0.00	1.43	0.582
Other[c]	8.79	9.52	8.57	0.893
Number years teaching (mean)	16.13	22.35	14.36	**0.001**
Number years teaching at current school (mean)	10.58	11.05	10.45	0.781
Number years implemented Marathon Kids (mean)	2.78	2.53	2.84	0.372
n times attended Kick-Off (mean)	2.89	1.62	3.27	0.066
n times attended Final Mile (mean)	3.29	1.48	3.83	0.022

* p value for tests of significance between the two study sites. Binomial test for proportions/t-test for continuous variables, values in bold p<0.05

n= number of respondents, CPS = Chicago Public Schools, LAUSD = Los Angeles Unified School District, MK=Marathon Kids

[c]Includes…Readind specialist, Asst principal,Co-ordinator, Instructional coach,parent volunteer, librarian, health education programs coordinator, Attendance (PSA)/Truant officer

Table 3. Participation in and school support for Marathon Kids. MK Coordinator Survey
Marathon Kids Evaluation Project, Spring 2011.

	Total Sample (n = 96) %	CPS (n = 25) %	LAUSD (n = 71) %	p-value*
Did you participate in Marathon Kids this year? (% Yes)	100.00	100.00	100.00	
Among those participating in MK…				
Attended Kick-Off event this year	61.96	61.90	61.97	0.996
Attended Final Mile event this year	68.13	35.00	77.46	**0.000**
Ever asked to volunteer at kick-off or final mile medal celebration?	30.00	60.00	21.43	**0.001**
Respondent volunteered at MK event this year	9.09	15.79	7.25	0.251
School provides structured time for MK's walking and running goals (% Yes)	73.96	80.00	71.83	0.424
Would recommend MK to other teachers (% Yes)	97.83	95.24	98.59	0.355
Among schools with structured time…				
How does school structure time for running/walking?[c]				
Class time dedicated to PA (e.g., "WOW")	38.54	16.00	46.48	**0.007**
Recess time	21.88	24.00	21.13	0.765
PE class	42.71	68.00	33.80	**0.003**
First thing in morning-before class	26.04	24.00	26.76	0.787
Lunch time	10.42	0.00	14.08	**0.047**
After school program	20.83	20.00	21.13	0.905
Otherb	9.38	8.00	9.86	0.784
School implemented school gardening project				
Yes, with support from MK	2.11	0.00	2.82	0.406
Yes, but developed separately from MK	30.53	8.33	38.03	**0.006**
No, don't have a school gardening project	61.05	79.17	54.93	**0.035**

Table 4. Process of implementing Marathon Kids at school. Marathon Kids Coordinator Survey, Marathon Kids Project, Spring 2011.

	Total Respondents (n = 96) %	CPS (n = 25) %	LAUSD (n = 71) %	p-value*
How is MK implemented in your school?				
Classroom teachers help students track miles walked or run[c]	69.79	32.00	83.10	**0.000**
PE teacher(s) help students track miles	39.58	80.00	25.35	**0.000**
Peer leaders help students track miles	5.21	8.00	4.23	0.465
Mile logs are displayed in classrooms	44.79	28.00	50.70	**0.050**
Which best describes where the majority of your 3rd-5th grade students fill in **Mileage Log**?				
Completes at home	0.00	9.86	7.37	0.110
Completes at school	58.33	54.93	55.79	0.772
Completes at home & school	37.50	32.39	33.68	0.647
Students do not complete	4.17	2.82	3.16	0.744
Which best describes where the majority of your 3rd-5th grade students fill in **Fuel Log**?				
Completes at home	14.74	8.33	16.90	0.306
Completes at school	32.63	33.33	32.39	0.932
Completes at home & school	30.53	37.50	28.17	0.391
Students do not complete	22.11	20.83	22.54	0.862

* p value for tests of significance between the two study sites. Binomial test for proportions/t-test for continuous variables; values in bod: p<.05.

n= number of respondents, CPS = Chicago Public Schools, LAUSD = Los Angeles Unified School District, MK=Marathon Kids

[c]Values do not add to 100% as respondent was able to check 'all responses that apply'.

Table 5. Communication channels for Marathon Kids. Marathon Kids Coordinator Survey, Marathon Kids *Evaluation Project,* Spring 2011.

	Total Sample (n = 96) %	CPS[a] (n = 25) %	LAUSD (n = 71) %	p-value*
Among those participating in MK…				
How did you first hear about MK?				
A regional school district presentation	27.08	56.00	16.90	**0.000**
A presentation at my school	1.04	0.00	1.41	0.551
Marathon Kids Website	12.50	12.00	12.68	0.930
My schools' participation in MK	15.63	4.00	19.72	0.063
A friend outside of school	5.21	4.00	5.63	0.752
A parent lobbyist told me	1.04	0.00	1.41	0.551
A co-worker told me	18.75	8.00	22.54	0.109
Other[b]	31.25	28.00	32.39	0.684
How did your school communicate to students to participate in MK this year?[c]				
Classroom teachers distributed MK information packets to students	75.00	24.00	92.96	**0.000**
PE distributed MK information packets to students	28.13	72.00	12.68	**0.000**
Other[d]	14.58	8.00	16.90	0.278
How did your school communicate to parents about MK this year?[c]				
PE and/or classroom teachers distributed				

MK information to students. Students brought information home.	66.67	88.00	59.15	**0.009**
MK info packets distributed to parents	8.33	0.00	11.27	0.080
A flyer, letter, or email sent to parents	36.46	12.00	45.07	**0.003**
Parents informed about MK at a school meeting	21.88	20.00	22.54	0.792
Parents informed about MK via school newsletter	17.71	24.00	15.49	0.338
Parents were sent reminder notice during course of MK program	32.29	32.00	32.39	0.971
Other[e]	2.08	4.00	1.41	0.435
This year, how did you receive information regarding upcoming MK events?[c]				
Flyers	23.96	12.00	28.17	0.103
MK website	43.75	36.00	46.48	0.364
Email from MK	94.79	88.00	97.18	0.076
District Meeting	4.17	8.00	2.82	0.265
Email from district PE coordinator	10.42	0.00	14.08	**0.047**
Other[f]	2.08	4.00	1.41	0.435

* p value for tests of significance between the two study sites. Binomial test for proportions/t-test for continuous variables, values in bold: p<.05.

[b]Other includes: " CPS P.E. workshop, email flyer, information session, from School Principal, from friend, LAUSD nutrition program, nutrition workshop, network for a healthy california orientation, from representative at professional development class, prior use of MK, Northridge hospital, Runners world magazine."

[c]Values do not add to 100% as respondent was able to check 'all responses that apply'.

[d]Other includes: through both method, through an assembly at school, school wide announcement/assemblies, posters in key area, announcement at back to school night

[e]Other includes: school monthly calendar, connect E; [f]Other includes: E-Mail from MK coord., MK packet. CPS = Chicago Public Schools; LAUSD=Los

Table 6a. Teacher input on MK program process among MK Coordinators in CPS (n = 25), *Marathon Kids Evaluation Project,* Spring 2011.

Teacher ratings on MK process, with 1= Strongly Disagree, and 5= Strongly Agree.	Summary Score Mean	Strongly disagree %	Disagree %	Neutral %	Agree %	Strongly Agree %	N/A or Never Rec'd %
MK instruction packet is easy to follow	4.46	8.33	0.00	0.00	20.83	70.83	0.00
Reminder emails from MK have been helpful	4.42	8.33	0.00	0.00	25.00	66.67	0.00
I feel sufficiently supported by MK at my school	4.38	8.33	0.00	4.17	20.83	66.67	0.00
MK makes an important contribution to the health and fitness of c hildren at our school.	4.38	8.33	0.00	4.17	20.83	66.67	0.00
Children at our school enjoy MK	4.38	8.33	0.00	4.17	20.83	66.67	0.00
MK is considered an important part of our coordinated school health plan.	4.00	8.33	4.17	16.67	20.83	50.00	0.00
It was easy for me to regsiter my students on the MK website.	4.50	8.33	0.00	0.00	16.67	75.00	0.00

In terms of communication between MK and you, what communication channel best for you?[c]	%
Information mailed to you at your school (% Yes)	40.0
Email sent to you (% Yes)	96.0
Other (% marking this response)	0.0
Do you feel the need for more training on how to implement MK at your school? (% Yes)	19.1

[c]Values do not add to 100% as respondent was able to check 'all responses that apply'.

n= number of respondents, CPS = Chicago Public Schools, LAUSD = Los Angeles Unified School District, MK=Marathon Kids

Table 6b. Teacher input on MK program process among MK Coordinators in LAUSD (n = 71), *Marathon Kids Evaluation Project,* Spring 2011.

Teacher ratings on MK process, with 1= Strongly Disagree, and 5= Strongly Agree.	Summary Score Mean	Strongly disagree %	Disagree %	Neutral %	Agree %	Strongly Agree %	N/A or Never Rec'd %
MK instruction packet is easy to follow	4.54	4.23	2.82	2.82	16.90	71.83	1.41
Reminder emails from MK have been helpful	4.61	4.23	1.41	2.82	14.08	76.06	1.41
I feel sufficiently supported by MK at my school	4.48	4.23	1.41	5.63	19.72	69.01	0.00
MK makes an important contribution to the health and fitness of c hildren at our school.	4.55	4.23	1.41	5.63	12.68	76.06	0.00
Children at our school enjoy MK	4.62	5.63	0.00	2.82	11.27	78.87	1.41
MK is considered an important part of our coordinated school health plan.	4.11	4.23	5.63	16.90	23.94	46.48	2.82
It was easy for me to regsiter my students on the MK website.	4.62	2.82	2.82	4.23	15.49	69.01	5.63
	%						
In terms of communication between MK and you, what communication channel best for you?[c]							
Information mailed to you at your school (% Yes)	60.6						
Email sent to you (% Yes)	95.8						
Other (% marking this response)	1.4						
Do you feel the need for more training on how to implement MK at your school? (% Yes)	18.3						

[c]Values do not add to 100% as respondent was able to check 'all responses that apply'.

n= number of respondents, CPS = Chicago Public Schools, LAUSD = Los Angeles Unified School District, MK=Marathon Kids