

It's 12 O'clock... What Are Our Preschoolers Eating for Lunch?

An Assessment of Nutrition and the
Nutrition Environment in Licensed
Child Care in Los Angeles County

July 2008



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Public Health Foundation Enterprises – WIC
Child Care Food Program Roundtable
California Food Policy Advocates

Funded by the Rosalinde and Arthur Gilbert Foundation

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EXECUTIVE SUMMARY

Public Health Foundation Enterprises-WIC, the Child Care Food Program Roundtable, and California Food Policy Advocates received funding from The Rosalinde and Arthur Gilbert Foundation to conduct an assessment of the nutrition environment of licensed child care settings in Los Angeles County.

Almost 40 percent of children aged zero to five in Los Angeles County, or nearly 350,000 children, spend most of their day in child care. These children consume a significant portion of their daily nutrition in these child care settings. However, there is a paucity of research on the nutrition environments in child care, a fact particularly striking given the alarming rise in obesity in this age group and the developing knowledge that the first five years of life are particularly critical in developing dietary patterns that set the stage for a lifetime of healthy eating.

By observing the foods and beverages served in licensed child care settings, the goal of the assessment was to produce evidence-based recommendations to strengthen the nutritional environment in these settings. Researchers conducted observations of the lunch service at 54 licensed child care sites in Los Angeles County. In addition to observing the food served to children, observations were made of the feeding environment and practices surrounding food service. Finally, a number of key stakeholder interviews were conducted to provide a background and narrative to the observational visits.

Key Findings

Research revealed a range of practices with respect to nutrition and mealtime behaviors across different types of child care settings. In general, locally-sponsored child care centers participating in the Child and Adult Care Food Program (CACFP) and Head Start centers had the best meal quality. Food brought from home had the worst meal quality. On average, lunches contained 1.43 servings of healthfully prepared fruits and vegetables. Nearly all (92 percent) of the sites served milk, with 80 percent serving reduced fat or skim milk, but few served water, as well. Only 22 percent of sites served whole grains. Forty-seven percent of sites served high-fat meats while 34 percent served lean meats. In general, the sites in which providers and children participated in the preparation, serving, and consumption of lunches were associated with a higher meal quality.

Policy Recommendations

1. IMPROVE NUTRITION IN ALL LICENSED CHILD CARE.

The State Legislature should:

- a. Enact changes to state licensing requirements to improve nutrition and physical activity, such as requiring nutrition standards for foods and beverages served in child care and establishing minimum physical activity requirements.
- b. Promote nutrition and physical activity in child care by emphasizing these components in compulsory licensing trainings and monitoring visits.

2. IMPROVE NUTRITION IN LICENSE-EXEMPT CARE

Local policymakers should:

- a. Identify public resources supporting licensed-exempt child care providers.
- b. Offer training, menu planning assistance and nutrition education to license-exempt providers.
- c. Develop and implement a plan to condition subsidies to license-exempt providers upon compliance with minimum standards of nutrition and physical activity.

3. IMPROVE NUTRITION IN CACFP

Congress and USDA should:

- a. Provide higher CACFP reimbursement tied to improved CACFP nutrition standards.
- b. Require CACFP sponsors to provide nutrition education in exchange for higher administrative reimbursement.
- c. Require CACFP-participating facilities to adopt mealtime behaviors and practices associated with healthier eating.
- d. Strengthen the monitoring and evaluation of CACFP centers that are not sponsored by an independent agency.

The state Legislature and CDE/NSD should:

- e. Provide higher state CACFP reimbursement tied to improved nutrition standards and more healthful mealtime behaviors and practices.

4. SIMPLIFY THE CHILD AND ADULT CARE FOOD PROGRAM

Congress and USDA should:

- a. Reduce paperwork requirements on both providers and sponsors.
- b. Re-evaluate separation of reimbursement claims into Tier 1 and Tier 2 rates.
- c. Provide schools that operate both the National School Lunch Program and CACFP the authority to operate CACFP under NSLP rules and regulations.

5. STRENGTHEN PROVIDERS' CAPACITY TO IMPROVE NUTRITION SERVICE

Local policymakers and organizations (LA County, LA City, School Districts, First5LA, LA Universal Preschool and local WIC agencies) should:

- a. Measure nutrition and physical activity practices as an indicator of quality care.
- b. Develop a standardized, peer-to-peer nutrition training for child care providers.
- c. Coordinate nutrition education messages.
- d. Include child care-related nutrition education in WIC counseling sessions.

6. MOBILIZE LOCAL EDUCATION AGENCIES IN LOS ANGELES TO STRENGTHEN EARLY EDUCATION ENVIRONMENTS

School districts should:

- a. Include all their eligible pupils aged 0-5 in their Network for a Healthy California contracts, so that resources, materials and curricula can add support for the staff and students attending those sites.
- b. Use bond funds to improve nutrition and activity environments.
- c. Should assess the feasibility of CACFP for non-school program sites.

AN ASSESSMENT OF THE NUTRITION ENVIRONMENT IN LOS ANGELES COUNTY LICENSED CHILD CARE

Overview of the Project

Each working day, almost 350,000 (40%) of the 900,000 infants and children aged zero to five in Los Angeles County spend at least a portion of their day in child care out of their home. For many of these children, out-of-home child care and preschool is where they spend most of their waking day and consume most of their nutrition (LACHS 2005). It is therefore surprising to learn that virtually no attention has been paid to obesity-prevention policy in this important community setting. This attention deficit has very severe consequences: Los Angeles County's preschoolers, like much of the rest of the nation's children, are in extreme jeopardy of overweight and obesity and their consequent adverse health outcomes, including Type 2 diabetes, high blood pressure, and heart problems.

Recognizing the gravity of this problem, The Rosalinde and Arthur Gilbert Foundation provided funding for California Food Policy Advocates, Public Health Foundation Enterprises- WIC and the Child Care Food Program Roundtable to begin studying this nutrition in this setting. The aim of the project was to take the first step in the process of strengthening the nutritional environment for young children in child care by observing the foods and beverages that these children receive and then determining the key nutrition policy improvements required. This project focused exclusively on nutrition in licensed child care, where over 300,000 young children spend their time. These settings provide most of these children's daily nutritional intake, presenting an extremely valuable opportunity to serve the right mix of nutrients and inculcate long-term, health-promoting dietary habits.

This project conducted observations of the lunch service at 54 licensed child care sites in Los Angeles County in order to provide a detailed description of what is currently served to children in care. In addition to observing the food served to children, observations were made of the feeding environment and practices surrounding food service. The goal of this work was to assess and analyze the nutritional environment in order to make recommendations for appropriate changes that will lay the foundation for policy, programmatic, and training initiatives to improve the obesity prevention capacity of licensed child care in Los Angeles County.

To accomplish this goal, the project laid out several key objectives and research strategies, including the compilation and analysis of relevant qualitative and quantitative data, as well as structured interviews to capture informed opinion of child

care providers and children's services providers. An additional project objective is to formulate policy recommendations to improve nutrition services in child care settings. To accomplish this goal, researchers collected and analyzed data and will present the results at a convening of key stakeholders, publish a white paper, and seek to forge consensus among child care leaders regarding the policy and program changes required to improve the nutrition environments in child care settings.

Problem Statement: The rise of early childhood obesity and its consequent health impacts

Data from two national surveys conducted from 1976 to 1980 and 2003 to 2004 confirm that the prevalence of overweight in children aged two to five has nearly tripled during that period from five percent to almost 14 percent.¹ Troublingly, in California this figure is even higher, at over 17 percent. Los Angeles County has not escaped this trend. For example, among Los Angeles County 3-4 year olds participating in WIC, thirty-five percent are overweight or at risk of overweight. This very worrying rate has increased at an alarming one percent annually in recent years.

Researchers have also found that a child who is overweight between the ages of two and four-and-a-half is five times more likely to be overweight at age twelve, when compared with children who are not overweight between those ages (Nader, 2006). This leads to the obvious conclusion that successful obesity prevention strategies must begin at very young ages. Because adolescent overweight increases the likelihood of adult obesity, these trends indicate a serious public health problem, given that obesity is associated with a number of severe diseases and medical conditions, including Type 2 diabetes, high blood pressure, heart problems, and certain types of cancer.

With rising rates of childhood obesity, research into the causes and prevention of this problem is increasing. Because children spend much of their day in schools, researchers have logically focused much of their attention on the school setting as a means to prevent childhood obesity. However, at an increasing rate, preschool aged children spend much of their day in child care settings – an arena in which remarkably little research exists on nutrition, physical activity, and obesity prevention.

Until now, studies of food and beverages in child care settings were few and dated. Given the age and paucity of these studies, there is a clear need for a reassessment of

¹ For children and adolescents (aged 2-19) overweight is defined as a body mass index (BMI) at or above 95th percentile for children of the same age and sex. This definition is based on the 2000 CDC growth charts for the United States.

nutrition in child care settings, particularly because the literature demonstrates the key role early childhood plays not only in future, adult body weight, but also in the development of lifelong eating habits. Children in this age group also are amenable to guidance and are effectively influenced by adults and role models. Intervention at this early age with the promotion of healthy behaviors and taste development can encourage a lifetime of nutritious eating. Very recently more research attention has begun to be focused in this area, and, slowly, a small amount of very interesting data is beginning to emerge (Ball, 2008; Padget, 2005).

In Los Angeles County, over 300,000 children aged zero to five attend licensed, out-of-home child care – the setting where they receive much of their daily nutrition. The lack of information on the nutrition quality of foods served in child care settings becomes more acute in light of child care’s continuing growth: nationally, the number of licensed child care facilities has increased 400 percent in the past three decades. Changes in demographics, family structure, gender roles, and employment demands for household economic security can explain the recent and projected growth in child care. The child care setting also represents a valuable focus for obesity prevention because state licensing, federal nutrition standards, and entitlement funding provide excellent opportunities for nutrition policy reform. Moreover, with reauthorization of the federal Child and Adult Care Food Program (CACFP) scheduled for 2009, policy recommendations resulting from this research study will coincide with the national debate arising on this program.

Licensed Child care in Los Angeles

Nationally, the child care landscape is fragmented and complex; Los Angeles County is no exception. This study chose to look exclusively at licensed child care facilities. Although many LA children are in unlicensed care, 19% of those in child care for 10 or more hours per week according to the California Health Information Survey, there is no way to accurately gather information on this population as most members have no contact with state or local agencies; nor is there a ready avenue for implementing policy recommendations. Even within the sub-group of licensed facilities there is a good deal of variation. Licensed child care facilities can vary from small family child care homes, where one person cares for three or four toddlers in her own home, to large preschools with professional staff and over a hundred children. Facilities can be for profit or non-profit, they can derive the majority of their funding from parent(s)’ fees or from state or federal funding. In the realm of nutrition, facilities can participate in the federal nutrition program targeted to child care, the Child and Adult Care Food Program (CACFP), or they can forgo this extra source of funding. The complexity of the child care landscape makes it a particularly difficult environment to study.

Table 1. Los Angeles County child care data.

Children 0-5 †	916,000
Children 0-5 with regular child care arrangements†	347,000
Children 0-5 in Head Start or State Preschool Program‡	82,000
Children 0-5 in center based child care‡	158,000
Children 0-5 in licensed family child care homes‡	67,000

† CHIS 2005; ‡LACHS 2005.

NOTE: data was compiled from two separate surveys. May underestimate the number of children in unlicensed child care.

This project’s targeted audience is children enrolled in LA County’s 2,230 licensed child care centers and 7,823 licensed family child care homes. The racial and ethnic profile of child care participants mirrors that of the county’s. Among child care families, 44 percent have incomes below 200 percent of the Federal Poverty Level (LACHS 2005.)

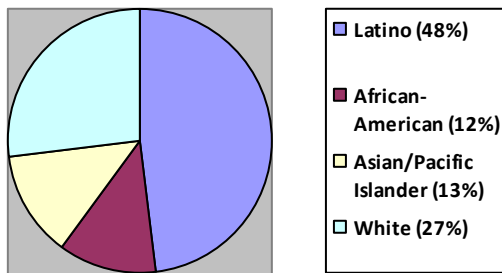


Figure 1. Child care Participants in LA County, by Race/Ethnicity

Overall, sixty percent of California children aged three to four are non-white. Over 47 percent of children aged three to four are Hispanic or Latino. Almost nine percent of this age group is Asian and over six percent is African-American. Over twenty percent of children under the age of five in California lives in families with an income below the poverty line. Nearly one-seventh of the nation’s children under the age of five resides in California (US Census Bureau, 2005). In light of these demographics, then, California is an entirely appropriate venue from which to project national policy implications regarding the nutritional quality of foods and beverages served in child care settings.

Overview of CACFP

Started in 1968, the Child and Adult Care Food Program (CACFP) is an entitlement program providing reimbursement for meals and snacks served to nearly three million children in child care settings, emergency shelters, and after school programs and

nearly 86,000 adults in nonresidential adult day care centers. The federal government funds the program, and there is an additional state supplement in California. In California, the Department of Education’s Nutrition Services Division administers the program.

Child care centers and day care homes are reimbursed for up to 2 meals and 1 snack per child per day. In child care centers a child’s meal is reimbursed based on her family’s income level. For children in families living at or below 130% of the federal poverty line (FPL), about \$26,850 for a family of four, their meals are reimbursed at the full level so that their meals are free to them and their family. Children in families living above 130% of FPL but at or below 185%, about \$38,200 for a family of four, are eligible for meals reimbursed at heavily subsidized “reduced-price” levels. For meals served to all other children, the federal government pays only a low “base” level reimbursement. However, as most facilities use a “non-pricing” option and include the cost of meals and snacks in the overall fee they charge for care, most families do not pay for individual meals as they do in the school meal system.

Table 2. CACFP Federal Reimbursement Rates for Child Care Centers 7/1/07-6/30/08

	Free	Reduced-Price	Base
Breakfast	\$1.35	\$1.05	\$0.24
Lunch and Supper	\$2.47	\$2.07	\$0.23
Supplement	\$0.68	\$0.34	\$0.06

CACFP reimbursement levels for day care homes are determined on a home-by-home basis rather than a child-by-child basis as is the case with child care centers. Homes located in low income areas, defined as neighborhoods where more 50 percent or more of children at that local elementary school receive free or reduced price meals, and day care home providers whose incomes are at or below 185% of the federal poverty line are reimbursed at the higher Tier I reimbursement rate. All other participating day care homes are reimbursed at the lower Tier II rate.

Table 3. CACFP Federal Reimbursement for Family Child Care Homes

	Breakfast	Lunch/Supper	Supplements (Snacks)
Tier I	\$1.11	\$2.06	\$0.61
Tier II	\$0.41	\$1.24	\$0.17

The state of California provides an additional supplement of \$0.1643 to the federal reimbursement for all free and reduced price meals served in child care centers and to 75% of meals served in day care homes.

Table 4. State Meal Reimbursement for Child Care Centers

	Free	Reduced-Price	Base
Breakfast	\$0.1634	\$0.1634	Not Applicable
Lunch	\$0.1634	\$0.1634	Not Applicable

To participate in CACFP, day care homes must be enrolled with a local CACFP sponsoring organization. The sponsoring organization is responsible for reviewing the day care home’s menus and attendance records monthly to verify that the home is complying with all CACFP requirements. Sponsoring agencies also process the home’s meal reimbursements. In addition, the sponsoring organization is required to make three monitoring visits to the home each year, two of which must be unannounced, to observe meals, provide trainings, and review paperwork. On top of these requirements, some sponsoring organizations also provide nutrition education to providers, children and parents.

For child care centers the monitoring situation is more complex. At one end of the spectrum, centers can choose to be sponsored by independent local CACFP sponsoring organizations and be monitored in much the same way as homes. At the other end of the spectrum, centers with only one location can contract directly with the state Department of Education and will be monitored only once every two or three years. Falling in between these two extremes are centers with multiple locations that contract directly with the state. While the state only monitors these programs once every two or three years, the programs are responsible for monitoring their individual sites three times a year similarly to the local CACFP sponsoring organizations. Programs such as Head Start and the State Preschool Program would fall into this middle category.

For the purpose of this study we chose to make a distinction between those CACFP participating centers that reported being monitored multiple times a year, whether it be by an outside entity or by people within their own organization, and those that reported being monitored only once every few years. We called this first group “locally sponsored” and the second group “state sponsored”, although the more appropriate terminology may be frequently monitored vs. infrequently monitored. The rationale behind making this distinction was the belief that centers would be more conscientious in abiding by CACFP requirements if they felt they were subject to more frequent, stringent monitoring and therefore might serve food of a higher nutritional quality.

Table 5. Los Angeles County CACFP data for children 0-5.

CACFP enrollment	123,572
CACFP average daily participation	93,975
% of children in centers qualifying for free or reduced price meals	83.4%
% of children in Tier I (low income) family child care homes	90.9%

Note: numbers overestimate 0-5 participation as they may include some school-aged children.

Many, but not all, licensed child care facilities in California must observe the nutrition standards prescribed by the United States Department of Agriculture (USDA) as a condition of federal reimbursement under CACFP for not only do these standards apply to all facilities participating in CACFP, but they also apply to all licensed child care centers in the state as they are included in California Community Care Licensing requirements.² However, unlike the National School Lunch Program (NSLP), CACFP does not include nutrient-based standards. CACFP employs meal patterns, which were devised in the 1960s and have not been revised since. Thus they fail to specifically embrace obesity-prevention concerns. While it is possible to serve very healthy meals within the CACFP guidelines, the meal patterns are so broad as to allow meals very high in fats, saturated fats and sugar as well.

² All child care centers are required by the state licensing regulations to follow the CACFP meal patterns regardless of their participation in the program. This does not apply to family child care homes, which must only follow the meal pattern if they are enrolled in CACFP and submitting the meal or snack for reimbursement.

Table 6. CACFP Meal Pattern – Lunch or Supper.

Child Meal Pattern Lunch or Supper			
Food Components	Ages 1-2	Ages 3-5	Ages 6-12¹
1 milk fluid milk	1/2 cup	3/4 cup	1 cup
2 fruits/vegetables juice, ² fruit and/or vegetable	1/4 cup	1/2 cup	3/4 cup
1 grains/bread³ bread or	1/2 slice	1/2 slice	1 slice
cornbread or biscuit or roll or muffin or	1/2 serving	1/2 serving	1 serving
cold dry cereal or	1/4 cup	1/3 cup	3/4 cup
hot cooked cereal or	1/4 cup	1/4 cup	1/2 cup
pasta or noodles or grains	1/4 cup	1/4 cup	1/2 cup
1 meat/meat alternate meat or poultry or fish ⁴ or	1 ounce	1 1/2 ounces	2 ounces
alternate protein product or	1 ounce	1 1/2 ounces	2 ounces
cheese or	1 ounce	1 1/2 ounces	2 ounces
egg or	1/2 egg	3/4 egg	1 egg
cooked dry beans or peas or	1/4 cup	3/8 cup	1/2 cup
peanut or other nut or seed butters or	2 Tbsp.	3 Tbsp.	4 Tbsp.
nuts and/or seeds ⁵ or	1/2 ounce	3/4 ounce	1 ounce
yogurt ⁶	4 ounces	6 ounces	8 ounces
<p>¹ Children age 12 and older may be served larger portions based on their greater food needs. They may not be served less than the minimum quantities listed in this column.</p> <p>² Fruit or vegetable juice must be full-strength.</p> <p>³ Breads and grains must be made from whole-grain or enriched meal or flour. Cereal must be whole-grain or enriched or fortified.</p> <p>⁴ A serving consists of the edible portion of cooked lean meat or poultry or fish.</p> <p>⁵ Nuts and seeds may meet only one-half of the total meat/meat alternate serving and must be combined with another meat/meat alternate to fulfill the lunch or supper requirement.</p> <p>⁶ Yogurt may be plain or flavored, unsweetened or sweetened.</p>			

Study Methods

In order to see how certain external variables affected nutritional quality, observations of the lunch service were made at 54 child care sites in Los Angeles County. We divided the complex licensed child care world into categories based on two factors we hypothesized would influence the quality of the foods and beverages served: The type

of facility and the facility's participation in the federally funded Child and Adult Care Food Program (CACFP.) Using these considerations, licensed child care facilities were divided into 7 groups: Head Start Programs³, State Preschool Programs⁴, non-CACFP participating child care centers, centers that participate in CACFP through a local sponsoring organization, centers that participate in CACFP directly under state sponsorship, non-CACFP participating family child care homes, and CACFP participating family child care homes. Our goal was to visit 7 sites in each of the 7 categories.

Given the small number of facilities to be visited, the objective of this project was not to be a large-scale, randomized study seeking statistically significant results. That type of study is being done by CFPA and partner organizations, covering much the same palette of issues, in a Robert Wood Johnson Foundation sponsored survey based on a self-administered survey mailed to 1,400 California licensed child care facilities with results expected in the fall of 2008. Rather, this study was an attempt to capture the rich, nuanced findings that can be obtained in a comprehensive, structured observation.

That said, every effort was made to obtain a random sample of child care sites. The California Department of Social Services provided a list of all licensed child care centers and homes in October 2007, and from this list an initial random sample of 108 sites was drawn. Letters were mailed to the selected sites inviting them to call, email or return a postage-paid postcard if they were interested in hosting a visitor to observe the lunch service. A small number showed immediate interest and observational visits were scheduled. However, the great majority of visits required extensive phone conversations in order to schedule a visit. Outright disinterest or resistance to the project was quite low. Instead, most often the letter was never opened, never reached the proper person at the child care site, or was forgotten about amidst the context of a very busy daily schedule. Once visits were scheduled, they generally went very smoothly, staff was very receptive and interested in the study, and the great majority was very interested in learning the results of the observations.

Observations were conducted by a team of seven paraprofessionals who work for the PHFE-WIC Program. The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) provides nutrition education and nutrition assistance in the form of vouchers for specific nutritious foods for low-income pregnant and post-partum women, infants and children up to age five. The staff conducting the visits had all

³ All Head Start Programs are required to participate in CACFP.

⁴ State Preschool Programs are part-day, state-funded programs for three- to five-year old children from low income families.

worked for PHFE-WIC for a minimum of five years, and had extensive experience working directly with mothers and young children and educating mothers about nutrition. A three-hour training session was conducted prior to the first observations, at which all observers examined food models to determine portion sizes and food groups and went item by item through the observational checklist to ensure that all observers interpreted all questions in the same manner. Reliability checks with a lead observer were done with each staff on their first visit to ensure that the team rated all items uniformly. At the visit, observers wrote down all food served to children, completing an observation form that allowed them to categorize foods into various food groups, draw picture to determine size, and indicate serving sizes. Observers wrote down everything served, and also observed various factors of the feeding environment during the lunch service (e.g. were caregivers seated with children, were caregivers eating the same foods, did children serve themselves, etc.) It is important to note that observations were made on the food served, and not what the children actually consumed.

Scheduling visits to all of the 7 categories of centers and homes proved to be the most challenging aspect of the project. Based on the list of licensed providers from CDSS, there was no way to determine whether sites participated in CACFP or not. Through random sampling, centers without CACFP and homes with CACFP were completed rapidly. Head Start sites could usually be identified based on the center name, and State Preschools were often affiliated with school districts, so those categories were also fairly easy to schedule from a random sample. Approximately 200 total sites were selected through the course of the project in order to conduct visits to a final total of 54 sites. Of the 150 that did not participate, fewer than 5 declined outright due to disinterest. About 10% turned out to be unusable listings, where the mail was returned to us and/or the phone number had been disconnected. About 20% had various obstacles for visitation: requirement that the board review the protocol and make a final decision about whether a visit could be scheduled, policies against research being conducted at the site, or requirements for TB clearance for all visitors. About 30% could never be reached by phone and did not reply to the mailed letter. And the remaining 40% did not qualify for a visit because they fell into a category for which we had already completed visits.

The most challenging aspect of this last 40% was related to center-based CACFP providers. Many centers did not know if they participated in the program or not, and if they did participate, many did not know if they were sponsored through state or local sponsorship. Thus, as we finished visits to each category of provider, it became more and more difficult to determine whether a site we were scheduling fell into the category

in which we were still looking to schedule. Scheduling the visits turned out to be a very significant investment of time and resources, but worth the expenditure.

In addition to the observation visits, formal interviews were conducted by CFPA staff with 16 public and private stakeholders. These stakeholders were identified by members of the project team and project advisors as experts and key decision makers in the Los Angeles child care, nutrition, and physical activity worlds. Interviewees were asked a standard set of questions, with some variation based on the individual's specific expertise.

Research Questions

- What foods and beverages are served in licensed child care settings?
- Does participation in CACFP impact the nutrition quality of foods and beverages served in child care settings as well as food-related behaviors?
- What impact does the type of licensed child care site have on the food-related behaviors and the nutrition quality of foods and beverages served in child care?
- What are the opportunities for improving the nutrition quality and food-related behaviors in all these settings?

Findings

The findings are reported in 6 sections: (1) A description of the sample, (2) a detailed review of foods served during lunchtime, broken down by category of child care provider, (3) an analysis of the observed mealtime behaviors that illustrates the observed environment during mealtimes, (4) reported food-related practices and policies, (5) a review of foods brought from home for the 5 sites at which this occurred, (6) an examination of the association between meal quality and quality of the nutritional environment and (7) a brief description of the observed physical activity environment.

1) Description of the sample:

The 54 sites visited varied considerably in size with the largest being a state sponsored CACFP participating center with 162 children and the smallest being a non CACFP home with 4 children. The five child care center categories, including Head Start and State Preschools, averaged between 37 and 75 children. Homes participating in CACFP averaged over twice as many children (12) as homes not participating in CACFP (6). The cost per week of the child care also varied greatly between sites. Facilities were asked how much they charged to care full time for a preschool-aged child. The least expensive were Head Start sites which were all free of charge to participants. The most

expensive was a state sponsored CACFP participating center which charged \$315 per week. The mean cost across all categories was \$89.74 per week, however this included Head Start and State Preschools that are free or heavily subsidized. Excluding these two categories, the mean was closer to \$122 per week.

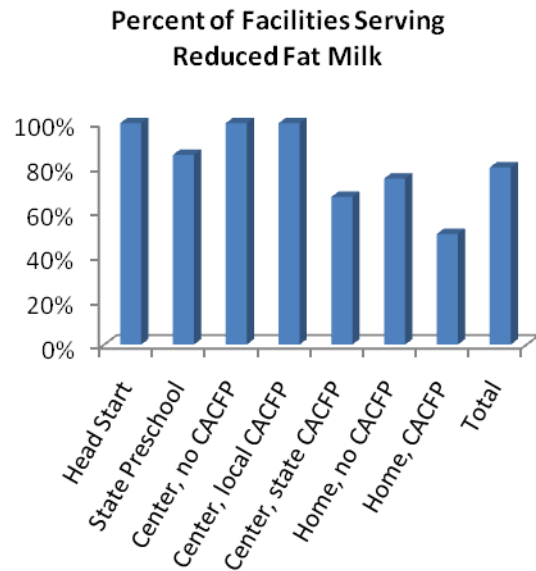
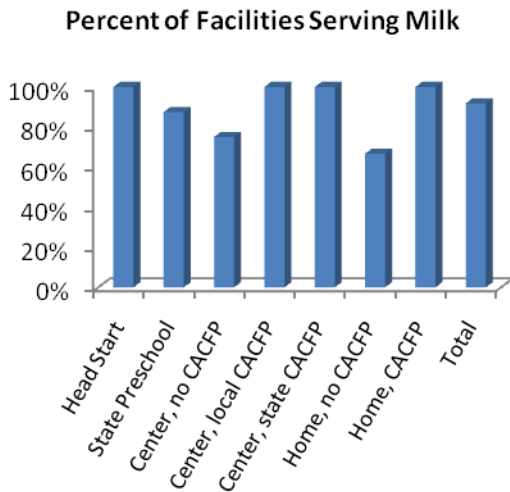
Of the 54 sites visited, 41 or 75.9 percent also served breakfast. However, only 9 or 16.7 percent served dinner. Twenty-nine of the fifty-four sites (53.7%) served morning snack and 39 or 72.2% served afternoon snack, but only 3 of 54 (5.6%) served evening snack. The low rates of dinner and evening snack service are unsurprising given that only 6 of 54 sites (11.1 %) offer evening care. Similarly only 4 of 54 sites (7.4%) offer any weekend care.

2) Food served at lunchtime observations

Data from lunch observations at the 54 sites was analyzed. The observations were separated in to the seven categories of child care described in the methods section above. At 5 sites, children all brought their own lunches from home. Thus, the following analyses present the data from the remaining 49 sites where the lunch was provided entirely by the center or home. A description of food brought from home is included separately.

Beverages:

Beverages are receiving increasing attention as a key contributor to overweight, thus it was particularly important to explore the beverages served. Of the 49 sites, 45 (91.8%) served milk with lunch. As shown on the charts below, many of the types of child care settings served milk 100% of the time. Homes not participating in CACFP were least likely to serve milk (66.7%). As milk is a required component of the lunch meal pattern it is not surprising that higher rates of milk service were seen in programs that participate in CACFP. Of the milk served, 80% was reduced-fat or skim milk as is recommended for children two and older by the American Academy of Pediatrics. Again, many of the types of child care settings universally served reduced-fat or skim milk. The highest rates of service of whole or flavored milk were found in homes not participating in CACFP, homes participating in CACFP and centers participating in CACFP through state sponsorship. The more prevalent service of whole milk in homes may be due to homes caring for more children under two years of age for whom whole milk is recommended.



Perhaps most interesting was the finding that juice was served very infrequently, as was water – only 4 sites each—and no one type of provider was more likely to serve juice or water. Most of the time (92%) only one beverage was served. Two beverages were offered in 4 sites.

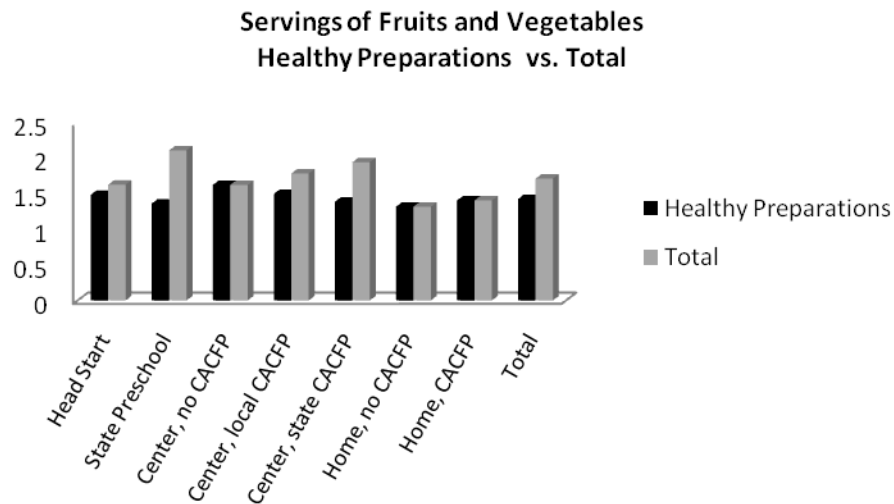
Fruits and vegetables:

Serving sizes were captured for fruits and vegetables, so serving sizes are estimated to the ¼ serving, where a serving size for a 3-5 year old child is assumed to be ½ cup according to the guidelines for CACFP. Servings of fresh fruits varied widely between the seven settings, with Head Start having the lowest mean servings of fresh fruit (0.11 serving) and locally sponsored CACFP-participating centers with the highest (0.79 serving) – or nearly one full serving per center. From low to high the other five groups' mean servings of fresh fruits: State Preschool Program (0.25 serving), State sponsored CACFP participating centers (0.44 serving), non-CACFP centers (0.50 serving), non-CACFP homes (0.54 serving), and CACFP participating homes (0.59 serving). The average between all seven groups was 0.46 servings of fresh fruit.

Servings of vegetables also varied between settings with State Preschool Program sites having the lowest mean serving of vegetables (0.66) and Head Start having the highest (1.00). From low to high the other five groups' mean servings of vegetables: locally sponsored CACFP centers (0.71), CACFP-participating homes (0.75), non-CACFP homes (0.78), non-CACFP centers (0.88), and state sponsored CACFP centers (0.94). The mean vegetable serving between all seven groups was 0.82. Only two types of facilities

served any fried potatoes. State preschools had a mean serving size of 0.31 and locally sponsored CACFP-participating centers averaged 0.11 servings per center.

When all fruits and vegetables considered healthful are combined, the sites average 1.43 servings per lunch service. This excludes all fried vegetables and all fruits canned in syrup. When fried vegetables and fruits canned in syrup are added to the total, the average serving size climbs to 1.71. The chart below presents the data for healthy preparation and total fruits and vegetable by category of provider.

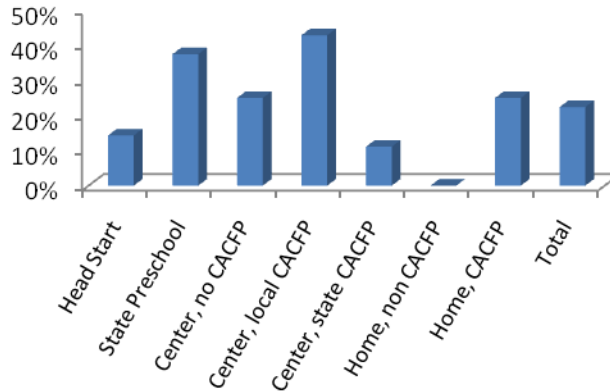


Whole Grains:

There is increasing focus on the importance of whole grains in the diet to increase health and prevent overweight.⁵ Despite this focus, very few child care sites provide whole grains during the lunch service. Only 11 out of 49 sites (22%) served any whole grains. This low percentage of sites serving whole grains is troubling as the 2005 Dietary Guidelines for Americans recommend that at least half of all grains consumed should be whole grains. The only whole grains observed were whole wheat bread, corn tortillas, and oatmeal. The figure below illustrates whole grain availability by category of provider.

⁵ Whole grains are any cereal grain that contains the entire grain kernel – the bran, the germ and the endosperm. Examples include: whole wheat flour, bulgur, brown rice, whole cornmeal, and oatmeal.

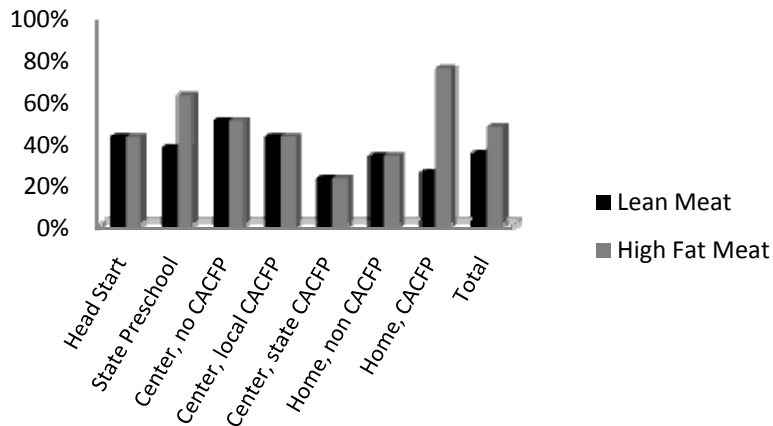
Percent of Facilities Serving Whole Grains



Protein:

Virtually all lunches served (96%) provided a source of protein to children. The important factor to consider is whether or not the protein is a lean or a high fat source of protein. Out of all 49 sites, lean meats, defined as chicken, lean turkey meat and fish (baked or smoked and not fried), were served at 17 of 49 sites (34.7%). High fat meats, defined as beef, pork, fried chicken, hot dogs, and fish from tuna casserole and tuna salad, were served at 23 of 49 sites (46.9%). The chart below illustrates the percent of facilities, by category, serving lean and high fat meats.

Percent of Facilities Serving Lean versus High Fat Meats



Other protein sources served included beans, cheese, peanut butter and eggs. These were served infrequently: beans in one site (<1 serving), a prepackaged bean and cheese burrito in one site, peanut butter in one site and egg salad in one site. Macaroni

and cheese was served in 5 sites. At only 6 sites were 2 protein sources served, with cheese the most common second protein source.

Condiments:

Condiments were used infrequently. The most common was ketchup (9 sites). Salad dressing was served at 6, butter at 2 and mayonnaise at 2. In only a few cases was more than one condiment offered, and 1 of the 2 was generally ketchup.

Sweets and snacks:

Dessert and snack foods were virtually unobserved at the lunch serving. Only 2 sites served sweets – one served a small piece of chocolate and the other a creamy grape juice bar. One site served Doritos snack chips.

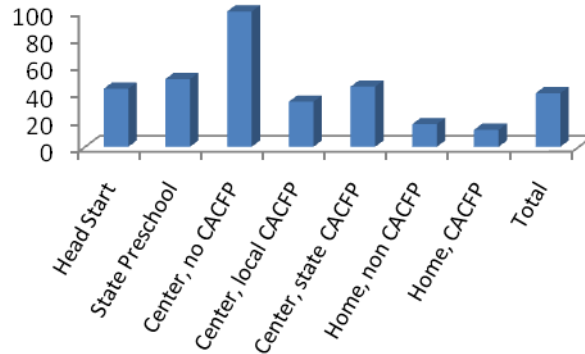
3) Observed mealtime behaviors:

While observing the lunch services, observers had the opportunity to watch the set up and clean up of the meal, mealtime behaviors and the overall classroom environment. A complete list of all observed behaviors is included in Appendix A. The following analyses provide an overview of the observed behaviors and environment during mealtime.

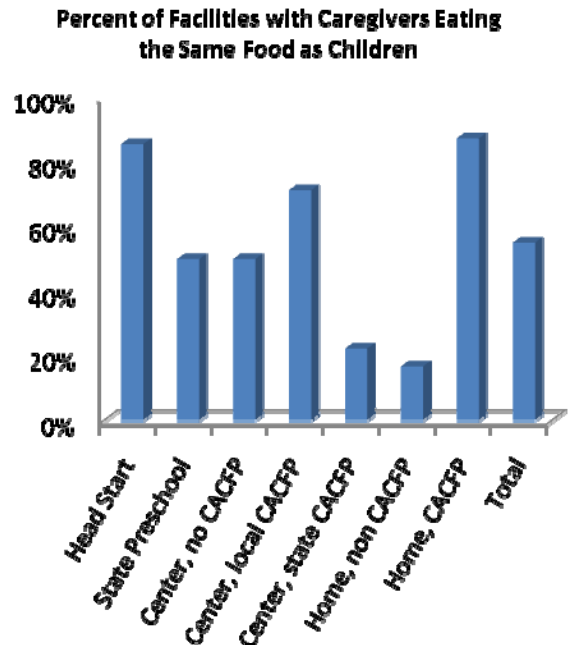
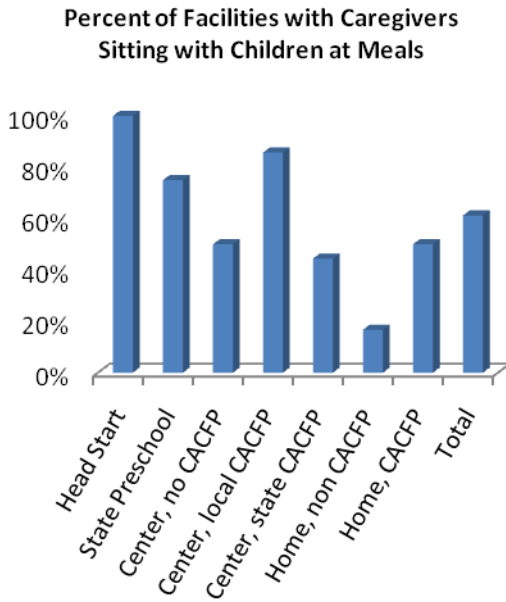
In 12 out of 49 sites (24.5%) the children helped prepare or set up the meal. This percentage was highest in Head Start sites (71.4%) and lowest in homes and centers that did not participate in CACFP (both 0%). In 21 of 49 sites (42.9%) the children served themselves the portion sizes they desired. This percentage was highest in Head Starts, where all sites (100%) had family style meal service. In no other category of site was this rate higher than 50%, and the practice was lowest in non-CACFP homes where no sites allowed the children to serve themselves.

Virtually all children 95.9% were allowed to have seconds of at least some foods. In 19 of 48 sites (39.6%) children were encourage to “clean their plate.” This practice was universal at non- CACFP centers (100%) and least common at CACFP-participating homes, where it was only observed in 1 of 8 sites (12.5%). While most experts encourage the practice of allowing seconds as it enables children to self-regulate the amount of food they wish to consume, it is not recommended to instruct children to finish all their food.

Percent of Facilities Encouraging Children to Finish All of Their Food



In 30 of 49 sites (61.2%) caregivers sat at the lunch table with the children. This practice occurred 100 percent of the time at Head Start sites. It was least frequent at non-CACFP homes (16.7%). In 27 of 49 (55.1%) sites caregivers ate the same food as children. Again this practice was most common at Head Start sites (85.7%). This practice was least common at non-CACFP homes (16.7%). In 38 of 49 sites (77.6%) caregivers talked with children about trying and enjoying healthy foods. This was seen the most in State Preschool Program sites where it was observed in all 8 visits (100%). It was observed the least in state sponsored CACFP centers (55.6%). Experts encourage caregivers to sit with children and eat the same food as it allows providers to model healthy eating behaviors for the children.



4) Reported food-related practices and policies:

Child care staff were asked about a number of food-related practices and policies, ranging from menus to using food as a reward, to how food is used at holidays and celebrations. When asked how often menus included a combination of new and familiar food, 45.4% answered “most” or “all of the time”. An additional 42.6% reported “sometimes”, suggesting that most menus included introduction of new foods at least some of the time. Similar numbers reported cultural variation in foods served. Thirty-nine out of fifty-four sites (72.2) reported placing restrictions on the foods brought from home. Some of the most common restrictions were either total bans on foods brought from home or bans on candy and soda.

Very few sites (11.2%) reported that food is used to reward desired behavior, with the vast majority reporting “never/rarely” (85.2%). Similarly, only 2 sites reported that food was sometimes used to control behavior or withheld as punishment. 59.2% reported that holidays are celebrated with mostly healthy foods or non-food items like stickers most or all of the time; 79.6% reported that staff used educational materials (e.g. storybooks, coloring books) that contain positive references to healthy food most or all of the time.

Nutrition education and training was an important area to explore. Fewer than 50% offered staff training opportunities on nutrition more often than once per year, with 18.5% never offering such trainings. Nutrition education opportunities for parents (e.g. workshops and activities) were even less common with fewer than 40% offering nutrition training for parents and 37.7% never offering such training. By contrast, sites reported that caregivers provide nutrition education for children very regularly, with 83.3% reporting such education happened monthly or more often.

When asked to choose from a list the thing the facility most needed in order to improve nutrition: 32.6% of facilities reported they most needed more nutrition education for parents, 25.6% reported they most needed more money for food, and 18.6% reported they most needed more nutrition education for staff. Comparatively few reported their greatest needs were better access to nutritious foods in the neighborhood (9.3%), menu planning assistance from a registered dietitian (7%), or something else (7%).

5) Food Brought from Home

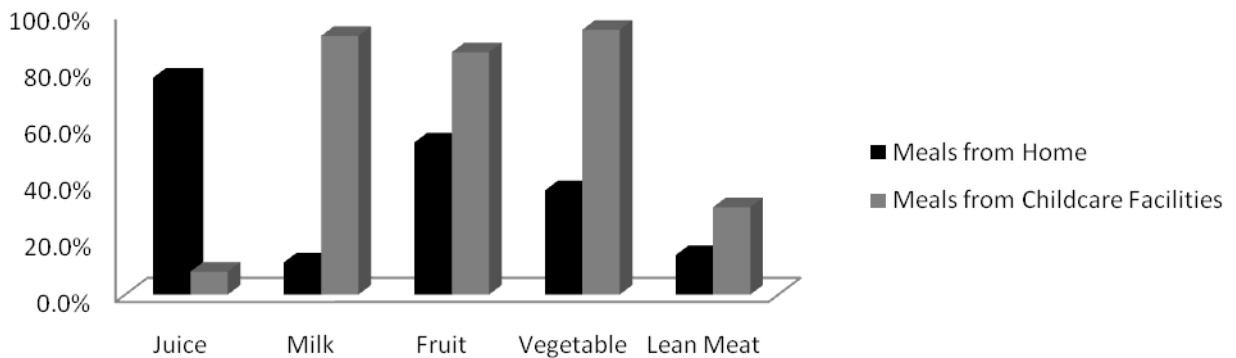
Children brought lunch from home at 5 of the randomly selected sites, and 35 individual meals were observed. This provided a unique opportunity to observe foods presumably sent by parents, and examine whether these foods were similar or different in overall quality from food provided by child care providers. Overall, food brought from home differed significantly from food provided by centers and homes. 27 of the 35 children (77%) brought juice boxes or juice drinks, the majority of which were 8 ounce servings and not the recommended 4-6 ounce servings. The good news is that 17 of the 27 were 100% juice. The remaining 10 included mostly fruit “drinks”, and one sweetened iced tea. Only 4 children brought milk, 3 brought 2% and 1 brought flavored milk. Eight children (23%) brought water, compared to only 4 child care sites (8%) serving water. Five children brought yogurt, a food not served by any of the child care providers.

19 children (54%) brought fresh (14) and/or canned fruit (6). One child brought 2 fresh fruits and one child brought a fresh and a canned fruit. The most common fruits brought from home were strawberries (4 children), bananas (4 children) and grapes (3 children). By contrast, 42 of the 49 child care centers and homes (86%) provided fresh or canned fruit. Similarly, 13 children (37%) brought fresh or frozen vegetables from home, compared to 46 of the 49 centers (94%). The most common vegetables brought from home were corn (4 children) and carrots (3 children). One child brought fried potatoes from home and 4 child care sites provided fried potatoes.

Whole grain products were rare across the board. Children rarely brought whole grain products for lunch. Five children (14%) brought whole grain bread for their sandwich, compared to 22% of sites that served a whole grain product (whole wheat bread or corn tortillas). Five children (14%) brought lean sources of protein in their lunch (usually chicken, with one child bringing fish). Comparatively, 31% of providers served a lean protein for lunch.

Prepackaged and processed foods such as chips and packaged cookies and desserts were more common in meals brought from home, though not prevalent. These foods were virtually nonexistent in meals from providers. Only one child care provider served Doritos Cool Ranch Chips, and only two served a dessert. By contrast, 7 children of those bringing food from home brought chips, cheese puffs or Cheeze-its. Six children brought desserts, including puddings, jello, cookies and candy. To give an idea of meals brought from home: One child brought 4 packaged foods – chips, Cheeze-its, candy and cookies - in addition to fried potatoes, an English muffin, 20 ounces of 100% fruit juice, string cheese and yogurt. Another child brought a McDonald’s McGriddle with sausage, and also brought a tomato and corn, 7 ounces of 100% juice and 8 ounces of flavored milk. Another child brought baked fish, corn, rice, a banana, 16 ounces of sweetened iced tea and vanilla pudding. Another child brought a peanut butter & jelly sandwich on whole wheat bread, raisins, pretzels and water. A fifth child brought a 7 ounce juice drink, cheese on white bread, chips and pudding.

Comparison of Meals Brought from Home to Meals Provided by Child Care Facilities



6) Associations between meal quality and the nutritional environment

Given the multiple different meals and foods served at the observed child care sites, a “meal quality” rating was devised to rate each meal served. A meal score was created

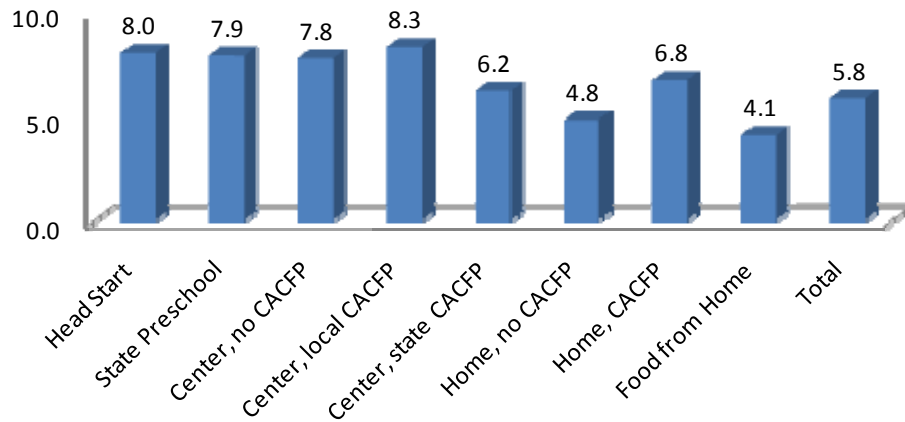
by assigning points to food served in the following categories, according to the following criteria:

Category	Points			
	0	1	2	3
Milk	None	Whole or flavored (of any % fat)	2%	1% or non-fat/skim
Water	None	Water served	-	-
Fruits	None Less than ½ serving canned in syrup.	1 serving canned in syrup, Or <1 serving 'healthy'	1 serving of 'healthy', including 100% juice (6oz)	2 or more servings of 'healthy', including 100% juice (6oz), but serving only juice would not give a 3, but a 2.
Vegetables	None Less than ½ serving fried.	Fried or with added fat Or <1 serving 'healthy'	1 serving of 'healthy'	2 or more servings of 'healthy'
Meats/Proteins	None	1 or more servings of higher fat meat, fried fish or fried chicken, mac & cheese	1 or more servings of beans with added fat, peanut butter, eggs or nuts/seeds,	1 or more servings of lean meat, fish, poultry, beans without added fat
Whole Grains	None	-	-	Any servings

Category	Points			
	0	-1	-2	-3
Sweetened beverages	None	One serving	2 servings	3+ servings
Desserts/Sweets	None	One serving	2 servings	
Snacks	None	One serving	2 servings	

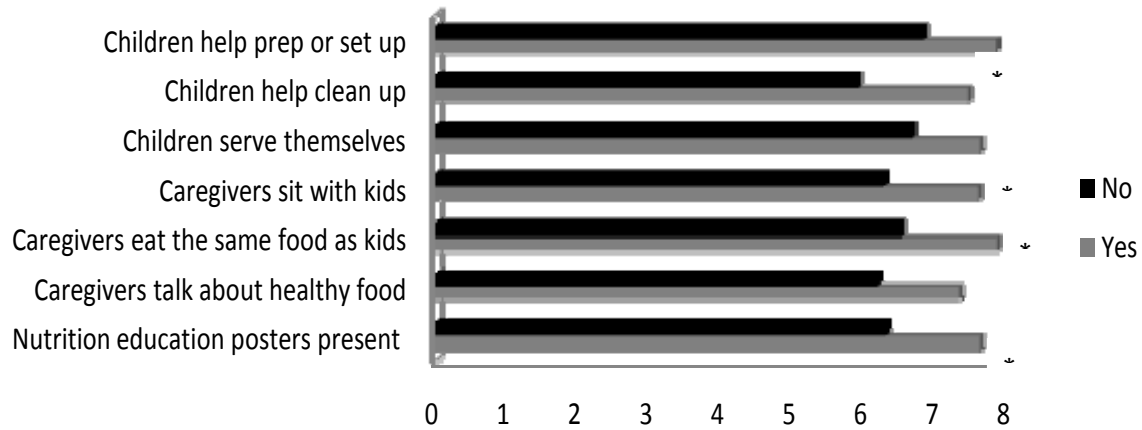
Using this rating system, meals could have a maximum rank of 16. The meal quality was rated for the 49 child care centers and homes. In addition, meal quality ratings were assigned to the 35 individual meals brought from home. The range of meal quality scores fell between -2 and 13, with a mean of 5.84 (SD = 2.63). The following chart shows the breakdown of meal quality by type of facility observed, with statistically significant differences ($p < .01$) between groups. As illustrated in the chart below, food brought from home had significantly poorer food quality than food from providers. Food brought from home was of significantly poorer quality than all groups except family homes without CACFP and centers with state CACFP sponsorship.

Mean Meal Quality Score



Examining the association between the observed nutritional environment and the quality of meals provided by centers proved very interesting. For the following analyses, food brought from home was excluded: with 35 meals observed in only 5 settings, variability of settings would not be captured fairly as characteristics from these 5 centers would get “counted” multiple times instead of once. Meal quality was higher in settings where children participated in the set up and clean up of the meal. It was also higher in settings where children served themselves, when caregivers sat down with the children during the meal, when caregivers ate the same food as the children and when caregivers talked about healthy food during the meal. The presence of nutrition education posters in the classroom was also associated with higher meal quality. Meal quality differences reached statistical significance for four of these seven behaviors, as show on the charts below.

Meal Quality Score by Eating Behavior



*denotes statistical significance $p < .05$

7) Observed physical activity environment

While the primary focus of the observation was on the foods and beverages and mealtime behaviors of staff and children, observers also gathered information on the physical activity environment. At only 3 out of 54 sites did the observer report that there was not sufficient outdoor running space for children. At 4 out of 54 sites there was no fixed play equipment (e.g. swings, slide or monkey bars) for the children to use. All 54 sites had portable play equipment (e.g. wheeled toys, balls, or mats) available for the children. In 14 out of 54 sites (26%) a TV was present in the room in which the children were eating. However, in only one of those sites was the TV on during mealtime.

Findings of stakeholder interviews

CFPA conducted interviews with 16 key informants with expertise in child care settings in Los Angeles County. These interviews lasted approximately 30 minutes and were conducted over the telephone. A number of themes emerged from these interviews, which focused on the nutrition and physical activity environments in child care settings.

When asked about their overall impressions of food and beverages served in child care, most agreed that there was room for improvement. The three most frequently mentioned problems were: lack of fruits and vegetables, overreliance on processed

foods and junk foods, such as pizza and hot dogs, and inappropriate portion sizes. Other responses that occurred more than once, included: excessive juice consumption, high fat in dairy products, lack of cultural appropriateness in foods served, and low provider education on nutrition and healthy eating. While reliance on juice was mentioned by many throughout the interviews, one respondent believed that there was not enough juice offered.

When asked about the benefits of CACFP, most respondents agreed that the advantages of the program were that it provided funding for food, established nutrition standards for meals, and improved accountability. However, when asked about the disadvantages of CACFP, there was near universal agreement that the paperwork was too burdensome. Others complained that the meal patterns were outdated and did not reflect current nutrition knowledge.

In response to a question about how foods and beverages served in child care could be improved, the three most cited responses were: less juice, more fruits and vegetables, and more water. A number of other changes were cited less frequently, but more than once. These included: portion control, more education/training for providers, more low-fat dairy, less fat/fried foods, and more funding.

When asked what the challenges to improving foods and beverages were, respondents most frequently mentioned the high cost and lack of access to healthy food as well as that children's food preferences were often shaped at home and any positive nutrition messages in child care food offerings were often not consistent with foods served at home or those preferred by children.

In response to a question about what changes could improve the nutrition in child care, responses varied widely, but the most frequent response was to improve nutrition standards federally and at a state or county level. Other responses emphasized the need to provide more trainings and to require healthier offerings.

All respondents except one responded affirmatively to a question on whether they would support an effort to strengthen CACFP nutrition standards to include more fruits, vegetables, and whole grains. They also generally agreed that more funding would be necessary to do so. Respondents were split on whether they would support limits or prohibitions on unhealthy items (such as candy, cookies, soda, chips, etc.). Some agreed with such an idea while others were reluctant to prohibit such items and would instead prefer that guidance be offered to encourage providers to not serve them. While most respondents generally agreed with the change to require all child care centers and homes that receive state child care subsidy payments to participate in

CACFP, a number also added that it would be necessary to make it easier to operate the program to establish such a requirement. Finally, when asked if they would support regulations to require all licensed child care facilities to meet or exceed CACFP requirements, most respondents generally agreed that such a requirement should be in place, but some cited concerns about enforcement and that such a policy would encourage providers to “go underground” and avoid licensure.

When asked about their overall impressions of physical activity (PA) in child care settings, responses varied widely. Some responded that their overall impression was negative while others believed that there were some settings that exhibited positive practices. More specifically, respondents cited concerns that there was a lack of training of providers with respect to PA and that many providers did not model adequate PA behaviors. Respondents also discussed that there was too much screen time, too many sedentary activities, safety concerns, and a lack of space for PA.

In response to question about the challenges to improving PA in child care settings, respondents most common response dealt with the provider either not being motivated to engage in PA him/herself or not knowing what PA would be appropriate for the children. Other common responses were that the neighborhood was not safe and that there was limited space for play.

Respondents were also asked about what would improve PA in child care settings, respondents most frequently cited the need for more training. The next most frequent response was the need for equipment and to include PA in licensing, either through training or by establishing requirements. Others discussed the need to improve safety and gain the buy-in of providers. There was wide support for limiting screen time, requiring training for providers, and requiring a minimum amount of PA be included in the child care day. However, some were concerned with how such requirements would be enforced and monitored as well as placing more burdens on providers.

RECOMMENDATIONS FOR ACTION

1. IMPROVE NUTRITION IN ALL LICENSED CHILD CARE.

The State Legislature should:

- a. Change state licensing requirements to improve nutrition by requiring:**

- **Nutrition standards for foods and beverages served in family child care homes.**
 - **Nutrition education for all parents who are responsible for regularly supplying child care meals and snacks for their children.**
 - **Increased water served in centers and homes.**
 - **Minimum physical activity standards.**
 - **A prescribed limit on screen time.**
 - **Increased monitoring to ensure compliance with these new requirements.**
- b. Promote nutrition and physical activity in child care by emphasizing these components in compulsory licensing trainings and monitoring visits.**

In Los Angeles County, over 300,000 children are supervised in licensed care facilities daily. Despite the widespread belief that licensure by the State Department of Social Services Community Care Licensing Division ensures adequate health and safety of children in these facilities, no law, regulation or practice requires that children in licensed family child care *homes* receive nourishing snacks, meals and beverages. While licensed child care *centers* are required to serve meals that follow the CACFP meal pattern, there is not sufficient monitoring or support to ensure that this requirement is being met. Further, the visits conducted in this study found the food brought from home to be significantly less nutritious than the food served by providers: remedial steps are clearly called for. Additionally, no nutrition training is provided as a condition of licensure.

2. *IMPROVE NUTRITION IN LICENSE-EXEMPT CARE*

Local policymakers should:

- a. **Identify public resources supporting licensed-exempt child care providers.**
- b. **Offer training, menu planning assistance and nutrition education to license-exempt providers.**
- c. **Develop and implement a plan to condition subsidies to license-exempt providers upon compliance with minimum standards of nutrition and physical activity.**

According to the 2005 Los Angeles County Health Survey, roughly 130,000 children with regular child care arrangements outside the home are in license-exempt care. A local child care resource and referral agency estimates that 70% of the child care subsidies that it distributes go to license-exempt providers. With increasing numbers of children supervised in unlicensed care settings, under the watchful eye of relatives or caretakers, it is important for policymakers to take steps to ensure these children receive the nutritional benefits of improved food, beverages and physical activity.

3. IMPROVE NUTRITION IN CACFP

Congress and USDA should:

- a. Provide higher CACFP reimbursement tied to improved CACFP nutrition standards that meet or exceed targets outlined in the 2005 Dietary Guidelines for Americans.**
- b. Require CACFP sponsors to provide nutrition education in exchange for higher administrative reimbursement. A nutrition education component should be added to sponsors' monitoring visits.**
- c. Require CACFP-participating facilities to adopt mealtime behaviors and practices, such as family style meal service and adult modeling of healthy eating, that the study found to be associated with healthier foods.**
- d. Strengthen the monitoring and evaluation of CACFP centers that are not sponsored by an independent agency.**

The state Legislature and CDE/NSD should:

- e. Provide higher state CACFP reimbursement tied to improved CACFP nutrition standards and more healthful mealtime behaviors and practices.**

Despite the clear and significant benefits of participation in CACFP, more can be done to align the foods and beverages served to be more closely aligned with the Dietary Guidelines. Improvements might include: more fresh fruits and vegetables, less juice, and more whole grains. These changes would need to be accompanied by an increase in the reimbursement level to offset the additional costs of serving more nutritious foods and beverages.

4. SIMPLIFY THE CHILD AND ADULT CARE FOOD PROGRAM

Congress and USDA should:

- a. Reduce paperwork requirements on both providers and sponsors. Activities deemed vital to sustain program integrity should be simplified as much as possible and technology should be used more effectively to make complying with the remaining requirements easier for homes, centers and sponsors.**
- b. Re-evaluate separation of reimbursement claims into Tier 1 and Tier 2 rates. .**
- c. Congress and USDA should provide schools that operate both the National School Lunch Program and CACFP the authority to operate CACFP under NSLP rules and regulations. Schools operating early education centers, Head Start programs and other pre-K programs are required to perform numerous duplicative functions. Schools should have the authority to operate the menu planning option they currently use for NSLP for pre-K meals and snacks as well, and to consolidate claiming, monitoring and recordkeeping procedures.**

While the benefits of CACFP are clear, many providers do not participate in the program because the paperwork is too burdensome. The precipitous drop in sponsoring agencies in California in recent years and a less precipitous, but unacceptable, reduction in participation by homes means that the benefits of CACFP – reimbursement, nutrition, support – do not reach many of the children who need it most. USDA convened a Paperwork Reduction Task Force and issued several policy memoranda, but the burden on sponsoring agencies still remains enormous. Unfunded policy mandates include: establishment of tier 1/2 determinations, annual enrollment forms, five-day reconciliation, separate infant feeding patterns, and block claiming monitoring and verification activities.

5. STRENGTHEN PROVIDERS' CAPACITY TO IMPROVE NUTRITION SERVICE

Local policymakers and organizations (LA County, LA City, School Districts, First5LA, LA Universal Preschool and local WIC agencies) should:

- a. Measure nutrition and physical activity practices as an indicator of quality care.**
- b. Develop a standardized, peer-to-peer nutrition training for child care providers. The primary objective of these trainings would be to improve the foods and beverages served by providers as well as the providers' meal time behaviors, such as family style meal service and provider modeling. A**

secondary objective would be to better equip the providers to work with parents to improve the food served at home and the food brought to the child care facility.

- c. **Coordinate nutrition education messages. Clear messages are essential to ensuring that households absorb behavior modification changes. More effort is needed to streamline, standardize and disseminate consistent nutrition messages that parents, children and providers receive from local organizations. Child care providers, CACFP sponsors, WIC agencies, pediatricians, and the range of service providers implementing health programs with children, ages 0-5, should be convened to orchestrate a unified sequence of nutrition education messages.**
- d. **Include child care-related nutrition education in WIC counseling sessions. As WIC already has significant contact with over 300,000 parents of children in this age group, they are a key partner in providing nutrition education and supportive encouragement. The changes to the WIC food package in 2009 represent the ideal opportunity to reinforce positive behavior changes among the 0-5 population. Additionally, many WIC participants may also be license-exempt child care providers, so the benefits of WIC-delivered nutrition education on how to serve healthful food can extend to the children they care for.**

There is unanimous consent that child care providers need support, encouragement, resources and incentives to facilitate improving food, beverage and physical activity practices in all child care settings. Because of the incredibly de-centralized system of child care in Los Angeles County, with thousands of independent and unconnected caregivers, centers and programs, and the busy lives providers lead, multiple, overlapping strategies are critical to improve the awareness of optimal nutrition and activity practices, as well as to develop providers' skills and resources to implement health improvements in care settings.

6. MOBILIZE LOCAL EDUCATION AGENCIES IN LOS ANGELES TO STRENGTHEN EARLY EDUCATION ENVIRONMENTS

School districts should:

- a. **Include all their eligible pupils aged 0-5 in their Network for a Healthy California contracts, so that resources, materials and curricula can add support for the staff and students attending those sites.**

- b. Use bond funds to improve nutrition and activity environments. Construction of new child care facilities and remodeling of existing facilities should include infrastructure requirements to promote good nutrition and activity, such as on-site cooking facilities, sufficient play space and clean water.**
- c. Los Angeles school districts should assess the feasibility of CACFP for non-school program sites. Preparing and delivering age-appropriate portion sized meals with fresh vegetables may assist some providers to offer nourishing meals and snacks.**

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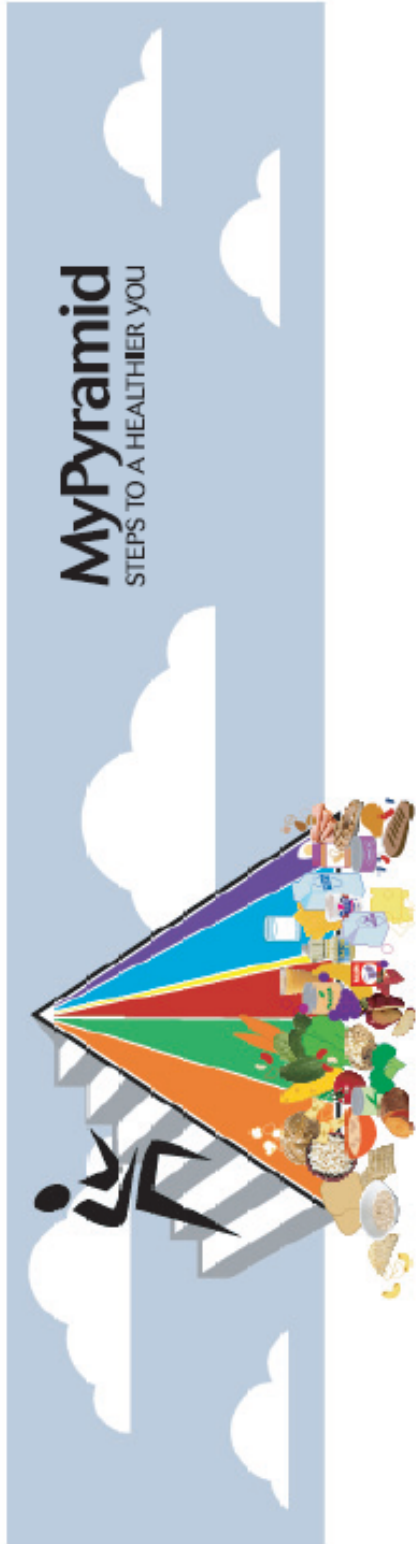
APPENDIX A. Charts used by the observer to record behaviors of interest during the visit.

OBSERVED MEAL BEHAVIORS	YES	NO	DK
1. Children participate in the preparation or set up of the meal			
2. Child sit down together to eat. (Please indicate where: Tables, floor, other _____)			
3. Children serve themselves			
4. All children are offered the same foods, (except for children with food allergies).			
5. Children are encouraged to ‘clean their plate’			
6. Children can have seconds of some foods and beverages			
7. Children can have seconds of all foods and beverages			
8. Children and caregivers sit down together to eat a meal			
9. Caregivers consume the same food and drinks as the children			
10. Caregivers consume less healthy foods than children			
11. Caregivers talk with children about trying and enjoying healthy foods			
12. Children participate in the clean-up of the meal			

OBSERVED ENVIRONMENT:	YES	NO	DK
1. Children have access to food outside of set meal and snack times			
2. Vending machines are present in the facility			
3. Children have unrestricted access to drinking water inside			
4. Children have unrestricted access to drinking water outside			
5. TV is present in the room where children are eating			
6. TV is on during the meal			
7. TV is on during the entire visit			
8. Structured physical activity* is observed indoors			
9. Sufficient outdoor running space for children			
10. Structured physical activity* is observed outdoors			
11. Fixed play equipment is available (e.g. swing, slide or monkey bars)			
12. Portable play equipment is available (e.g. wheeled toys, balls or mats)			
13. Caregivers restrict active playtime for children who misbehave			
14. Nutrition education posters or materials are posted.			
15. Nutrition education materials have food/beverage industry logos (e.g. Nestle, Coke, etc)			

*Structured physical activity is set up by an adult caregiver. Adult may participate for the duration, or set up the activity/activities and then monitor. Examples might include things like setting up a game of tag, a ball game, or a “dance with me” activity to music where children are encouraged to be active.

APPENDIX B. USDA MyPyramid guidelines for children 4-5 years old, who are physically active 30 to 60 minutes per day. (<http://www.mypyramid.gov/mypyramid/index.aspx>)



Based on the information you provided, this is your daily recommended amount from each food group.

<p>GRAINS 5 ounces</p> <p>Make half your grains whole</p> <p>Aim for at least 2 1/2 ounces of whole grains a day</p>	<p>VEGETABLES 1 1/2 cups</p> <p>Vary your veggies Aim for these amounts each week:</p> <p>Dark green veggies = 1 1/2 cups</p> <p>Orange veggies = 1 cup</p> <p>Dry beans & peas = 1 cup</p> <p>Starchy veggies = 2 1/2 cups</p> <p>Other veggies = 4 1/2 cups</p>	<p>FRUITS 1 1/2 cups</p> <p>Focus on fruits</p> <p>Eat a variety of fruit</p> <p>Go easy on fruit juices</p>	<p>MILK 2 cups</p> <p>Get your calcium-rich foods</p> <p>Go low-fat or fat-free when you choose milk, yogurt, or cheese</p>	<p>MEAT & BEANS 4 ounces</p> <p>Go lean with protein</p> <p>Choose low-fat or lean meats and poultry</p> <p>Vary your protein routine—choose more fish, beans, peas, nuts and seeds</p>
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Find your balance between food and physical activity

Be physically active for at least **60 minutes** every day, or most days.

Know your limits on fats, sugars, and sodium

Your allowance for oils is **4 teaspoons a day**.

Limit extra-solid fats and sugars—to **170 calories a day**.

Your results are based on a 1400 calorie pattern **Name:** _____

This calorie level is only an estimate of your needs. Monitor your body weight to see if you need to adjust your calorie intake.