

INTERVENTION

Head Start Central Kitchen Initiative Salt Lake Community Action Program



DISSEMINATION CATEGORY

The Salt Lake Community Action Program Head Start Central Kitchen initiative is an **emerging intervention** based on its use of evidence-based strategies. Developed in practice, the initiative shows promise but evidence in support of effectiveness is not yet available.

OVERVIEW

Intent of the intervention: The primary goal of the Salt Lake Community Action Program (SLCAP) Head Start Central Kitchen (a.k.a. the Central Kitchen) is to control the quality of food provided to Head Start children. The full initiative consists of a central kitchen that provides affordable, high-quality meals and snacks that are served in an environment that emphasizes modeling of healthy eating and providing positive reinforcement and education about new foods. The main component, the Central Kitchen, prepares nutritious foods from scratch and then delivers meals to Head Start sites in the community. The initiative provides daily breakfast, lunch, and snack options to children enrolled in participating Head Start and child care centers.

For many children in the Head Start program, the nutrition provided is essential to their health and well-being. For some children, the meals they receive at Head Start are the only meals they'll receive during a day. In addition, many of the children's diets are high in fats and sugars, and 29% of the children have been identified as overweight by weight-for-length percentile growth charts.

As part of the initiative, SLCAP adopted its own best practices for healthy eating, requiring meals catered through the Central Kitchen to meet or exceed the U.S. Department of Agriculture (USDA) Child and Adult Care Food Program (CACFP) standards.

The SLCAP's adopted best practices for healthy eating

- Fresh fruit and vegetables served with every meal
- Access to a wide variety of fruits and vegetables
- Locally grown and, when possible, organically grown foods
- Foods low in fat, sugar, and salt
- Low- and nonfat dairy foods
- White milk (whole milk for children aged 1–2 years and nonfat milk for children aged 2–5)
- 100% fruit juice
- Lean protein choices
- Cereals low in sugar
- Whole grain products, including pasta
- Foods not fried
- Foods prepared from scratch ingredients; minimal use of pre-packaged foods

During the school year, the Central Kitchen delivers 3,000 healthy, nutritious and appetizing meals daily to the Head Start classrooms, and 1,400 meals a day to summer programs, (dinners

are included in the summer program). The kitchen serves children at 24 sites, including private sites.

The Head Start Central Kitchen initiative focuses on the individual/interpersonal level of the socio-ecologic model (children and their teachers and parents), with a secondary focus on the organizational level (preschools).

Intended Population: Preschool children, aged 3-4 years, enrolled in SLCAP Head Start. Due to the Central Kitchen's success, it serves children in programs other than Head Start, including YMCA, Boys and Girls Clubs, and University of Utah children's programs.

Setting(s): Child care; predominantly Head Start programs

Background: In 2008, the SLCAP Head Start director and health manager, disturbed by the poor-quality of meals served to children enrolled in Head Start, started exploring how they could provide high-quality, nutritious meals. They decided the program needed to adopt its own set of best practices for healthy eating.

Further, they sought a vendor who would meet their price requirements and provide delivery of 2,400 hot meals a day. No vendor could be found to meet these criteria. Consequently, they began exploring the concept of finding and operating their own centralized kitchen. They sought input from a broad variety of sources and visited a number of central kitchens, ranging from San Diego, California to the north side of Salt Lake City. After some challenges, they found a kitchen space that needed renovation to bring it up to code. Construction began in 2009.

In spring 2009, while the new Central Kitchen was being renovated, a temporary kitchen was found for the program in a Greek Orthodox Church. During this pilot phase, SLCAP Head Start hired a food services director/chef and other kitchen staff and developed and tested systems for operating the kitchen. The food services director played an important role in developing the building plans for the Central Kitchen.

Length of time in the field: The initiative began in early 2009

HEALTH EQUITY CONSIDERATIONS

The Head Start Central Kitchen initiative is designed to promote healthy eating in SLCAP Head Start sites by providing high-quality, nutritious meals to children and staff. Among children enrolled in SLCAP Head Start, 60% are of Hispanic or Latino origin and the primary racial groups include the following: White (84%), Black or African American (6%), and Native Hawaiian or Other Pacific Islander (6%), and Asian (3%). Among families with children enrolled in SLCAP Head Start, 100% are eligible for free and reduced-priced meals based on family income requirements and almost 50% receive services from the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). The SLCAP Head Start sites are located on the west and south sides of Salt Lake City and County and the more rural Tooele County; these populations typically have lower incomes as compared to the east side of Salt Lake County.

IMPLEMENTATION

Main Components:

Involve stakeholders and key players early in the planning process: The Salt Lake Community Action Program administrative structure includes several boards and councils that provided guidance and feedback during the planning process. Parents participated as members of the Head Start Policy Committee. Administrators built support for the kitchen by reaching out to key leaders and stakeholders. Community businesses supported construction of the kitchen and government agencies, such as city departments of health, fire, and planning, were consulted early in the process. Planners sought input from CACFP officials and food distributors. The Head Start program director and health manager served as champions for the initiative and visited a number of central kitchens.

Develop a business plan: Estimate expenses and sources of funding to cover expenses. Expenses include staff to operate the kitchen, the building or leasing/renovating of kitchen space, developing menus, and purchasing equipment. Menus should be developed before determining what kitchen equipment will be needed. External funding sources (not including CACF) are grants, donations from private businesses and individuals and fundraisers. The kitchen was planned as and continues to be self-sufficient and sustainable. It does not rely on monetary donations to function.

Choose a site: The Central Kitchen, housed in a former production bakery, was renovated to meet health, fire and building codes. The kitchen space is approximately 4,890 square feet; seven full-time staff work in the kitchen, and prepare and deliver 3,000 meals a day to Head Start classrooms.

Hire an experienced food service director: SLCAP Head Start hired a food service professional with experience in the business side of running a food enterprise as large as the Central Kitchen. The food service director has to be knowledgeable about food service, meal prep, and operating a large kitchen. For the Central Kitchen to be revenue-neutral, the food service director must be able to control inventory, ordering and costs. Equally important, the food service director should have culinary training as a chef, with the skills to prepare foods that are low in fat, sugar, and salt and that taste good.

Develop cycle menus and standardized recipes: SLCAP Head Start Central Kitchen adopted its own best practices for healthy eating that specified preparing meals from scratch. The Central Kitchen uses fresh fruits and vegetables and organic or local products, when available. The kitchen places a strong emphasis on nutrient-dense foods and beverages, such as vegetables, fruits, whole grains, low-fat milk products, seafood, lean meats and poultry in daily menus. Menu options include culturally and ethnically diverse ingredients that help broaden a child's food experience. Recipes were developed by the chef and approved by a registered dietician who conducted a caloric and nutrient analysis of foods. Staff and parents provided feedback to the chef and menus were adjusted as appropriate. A minimum of four cycle menus meeting CACFP portion requirements were developed. A cycle menu is a series of menus planned for a particular period of time, for example 4 weeks. The menu varies for each day of the cycle. At the end of the cycle the menus are repeated.

Select a food service distributor (purveyor): The Central Kitchen selected a distributor who made a commitment to provide food that meets the SLCAP Head Start best practices and, when possible, purchase local foods that are within the program's food cost requirements. Most of the food comes from Utah and nearby states, Idaho and Colorado. The chef estimates that 75% of the food served is local. To control food cost, the food service distributor provides the chef access to a database of daily quoted prices that provides real-time cost estimates of the food items for a given menu before a purchase order is issued. This allows the chef to negotiate food pricing which is essential if the Kitchen is to be revenue-neutral. Throughout the school year, the director of food service acquires a number of food procurement bids to ensure that the Central Kitchen obtains the fair market rate for products purchased.

Train central kitchen staff: To ensure that kitchen operations are not interrupted, staff members are cross-trained to perform different duties, so if one person is not able to work, another person, trained to do the job, fills in. The chef trains line cooks to prepare foods that are low in fat, sugar, and salt.

Develop systems for data tracking and reporting to CACFP and other agencies: CACFP reimbursement provides 86% of the Central Kitchen's annual operating budget. SLCAP met early on with local CACFP representatives to ensure that during the development stage of the project all required CACFP documentation was considered and could be included when systems were implemented. As part of the data tracking and CACFP compliance, everything from cycle menus to transportation sheets were taken into account. The nutrition assistant is responsible for both the CACFP-required documentation and for tracking Central Kitchen cycle menus developed with the chef and any adjustments to the production plan. Collaboration between the nutrition assistant and the chef are integral to the overall success of the program. Ordering of product in bulk allows the Central Kitchen cost savings to be passed along to clients, which is a great incentive.

Conduct a pilot phase to test your systems before production is increased: During the renovation of the building that would house the kitchen, staff members conducted a pilot test (300 meals per day) in a church kitchen. Staff used this time to develop systems for tracking data and reporting to CACFP, conducting taste tests of food items and trying out menus. Additionally, they developed and tested kitchen operating procedures related to food purchasing, production, and handling any special dietary requests.

- Food preparation
Half of the staff works the opening shift. Food is prepped the preceding day, allowing staff to begin cooking the first thing in the morning. After the meal deliveries leave the Central Kitchen, the remaining staff begin clean up and prep work for the next day's menu items.
- Packing food for delivery
Central Kitchen developed *on time* and *at temperature* meal delivery procedures for packing and safely transporting hot and cold foods to meet the Hazard Analysis and Critical Control Point (HACCP) protocols. To meet the *at temperature* requirement, hot and cold meals are prepared and packed in cambros (commercial-grade food containers) to retain temperature. All hot food items are warmed to 160 degrees; cambros allow only a one-degree drop in temperature each hour, keeping food within the food safety zone until it is served and eaten. CACFP rules require on time delivery of food or else reimbursement is withheld. To meet *on time* requirements, Central Kitchen

created a tracking system that recorded the time food came out of the oven or heater and was packed for delivery. Delivery is documented with a teacher's signature, the date and time. A time control transportation sheet documents the time food is received and the sheet is returned to the Central Kitchen at the end of the month. Head Start classroom staff are responsible for accepting the food and putting it in the appropriate storage area. Cold food items are placed in a refrigerator to maintain the food at a safe temperature of 5° C (41°F) or below. Hot food items are kept in the cambros until time to serve the food.

- Food delivery and container/plate pick up
The line cooks also serve as the drivers. Because the cambros are used for hot and cold food, refrigerated trucks are not needed. The delivery staff make all their drops, then return to the Central Kitchen to take over prep work of the next day's food. Later the drivers pick up the dirty dishes, cambros and deliver afternoon snack and the next day's breakfast. In an effort to be environmentally friendly, paper products such as plates, bowls, etc. are not used. The used plates and food containers are washed for use the next day.

Create a supportive environment that promotes healthy eating: Head Start does not allow teachers to bring food into the classrooms; they must eat what the children eat and are expected to model healthy eating. Meals are served modified family style where the teacher serves the food to each child from main dishes. The Health Department does not allow children to serve food. The classroom staff serve the children full portions of all CACFP meal components using a spoodle for portion control. The teachers talk about the food items that day and encourage the children both by example and verbally to try something new. To be successful, everyone has to buy into the process, including the teachers.

Parents are role models for eating healthy food through the Volunteer in the Classroom program. They eat lunch and complete evaluation forms about what they ate (parent food comment card). Central Kitchen staff use the forms to look for issues and for recipes that parents would like the kitchen to try, particularly cultural dishes.

Central Kitchen offers cooking classes for parents. The Sauté culinary training program gives Head Start parents the opportunity to learn how to cook healthier foods. Additionally, the chef provides training for the ServSafe® Food Handler examination, which is necessary for food handler certification. This certification increases opportunities for employment in a food service company. Sauté operates three sessions per year, classes consist of 40 hours of instruction and are completed in six weeks. About 80% of graduates who look for a job have been successful as a result of cooking class participation. About one in six parents take the course to learn how to cook for their families. About five of six want to get a job in the food industry. The classes graduate 8-10 parents every three months, and maintain a waiting list of future participants. Donations from corporations pay for the culinary training program.

Keys to Success:

- Central Kitchen collaborates with Utah Juvenile Justice Services Genesis Youth Center, a residential work camp program for youthful offenders. Youth, ages 14-18, wash dishes, mop and sweep floors and older kids help pack the cambros and serve as food handlers. This is an in-kind donation (\$18/hr) to the kitchen. Two groups of youth work every day, one in the morning and one at the end of the day. This adds up to about 700-800 hours/month. The Central Kitchen food service director thinks other groups replicating

this initiative may need something similar to offset some of the labor costs of running a large kitchen.

- In-kind donations are essential to the kitchen's successful operation; they range from labor to food (for some foods, the kitchen pays less than market rate, and the difference is considered an in-kind contribution.)

Barriers to Implementation:

- Meeting health department regulations for delivering food at safe temperatures. Central Kitchen accomplished this by purchasing insulated boxes (cambros) that hold food temperature with a 1-degree drop per hour.
- Responding to special dietary requests, e.g., food allergies. Central Kitchen developed a system with four checks before the food is served to the child. The first check entails accommodation of the food allergy and ensures that the product purchased is comparable to food on the menu. Each morning, following preparation of food, one individual is responsible for the second check, which is packing the meals that accommodate food allergies. The third check is the responsibility of the line cook driver who delivers the meals to the identified sites. Once the food is delivered to the classroom, the classroom team (teachers and/or family advocates) ensures that the final meal accommodates the child's identified food needs. This would be the final check prior to the food being served.
- Engaging teachers to be positive role models for eating healthy food that is being served family style in the classroom. Some teachers have never eaten some of the food being served (ex. real fish instead of fish sticks).
- Food waste. Central Kitchen developed a policy that said how long a new food would be tested for acceptability by the children and what was acceptable food waste. New foods are introduced at least three times before they are removed from the menu.

RESOURCES REQUIRED

Staff: The Central Kitchen employs seven full-time staff year-round (12 months)

- 1 Food service director/chef
- 1 Nutrition assistant
- 1 Food service worker
- 4 Line cooks/drivers

Training: To ensure that kitchen operations are not interrupted, staff members are cross-trained to perform different duties; if one person is not able to work, another person, trained to do the job, fills in. The chef trains line cooks to prepare foods that are low in fat, sugar, and salt.

Materials: Kitchen equipment costs were approximately \$286,721; this amount includes the purchase of a fire-suppression system at \$32,000. Some commercial equipment was purchased at reduced costs and/or was donated from restaurants going out of business or from other businesses selling used equipment.

Funding: The majority of the operating budget (86%) is from CACFP reimbursement, and food costs are budgeted at 50% of the CACFP reimbursement, preserving a revenue-neutral program. When serving 2,400 meals daily, the estimated annual operating budget for the full program was \$773,602. CACFP reimbursement made up \$667,762 of the operating budget.

The remainder of the operating budget, \$105,840, was funded by private companies, in-kind donations, and income-generating activities (e.g., catering special events, fundraising). The identified private funding and donations made to the kitchen were used to create the job training program known as Sauté.

Central Kitchen estimates the average cost of a lunch is \$1.45 to \$1.50, including milk.

Space needs: The Central Kitchen is divided into three functional areas: 1) office space and employee meeting area; 2) dry food storage, food receiving, and food loading area; and 3) food production area.

UNDERLYING THEORY/ EVIDENCE

Strategies Used: The Head Start Central Kitchen Initiative utilizes the following evidence-based strategies for healthy eating:

- **Changing Access and Availability to Favor Healthy Foods and Beverages:**
The Central Kitchen changes the availability of healthy foods to Head Start children by providing lunches that are both healthy and appetizing. The impetus for starting the Central Kitchen was how unappetizing meals were considered to be prior to 1) the creation of the Central Kitchen and 2) SLCAP Head Start's adoption of its own best practices for healthy eating that exceeded CACFP nutrition guidelines.
- **Comprehensive Nutrition Programs in a Single Setting:**
The Head Start Central Kitchen Initiative provides a comprehensive approach to healthy eating and can serve as a model for various types of food service institutions in serving high-quality, nutritious meals to preschool-age children. Nutrition-related education for SLCAP Head Start staff, monthly classroom cooking activities for children, and monthly newsletters for parents all work to improve knowledge, attitudes, and interpersonal skills for healthy eating. Additionally, the Central Kitchen's collaborations with CACFP and other partners result in high-quality, nutritious meals that support healthy eating.
- **Increase Purchasing and Use of Foods from Local Farms:**
The food service director estimates that 75% of food purchased for the meals is from local farms. Most of this locally grown food comes from Utah and states nearby, Idaho and Colorado.
- **School Nutrition Programs to Promote Healthy Eating:**
Central Kitchen planners drew upon the academic literature to include family-style meals and positive modeling of eating healthy foods by adults to increase the likelihood that children in the program would adopt healthier eating habits. They also knew that successful introduction of a new food to children would require serving it several times before a child would like it.
- **Social Support for Healthy Eating:**
The Head Start Central Kitchen Initiative utilizes the support of families and parents through parent volunteers in the classroom who model healthy eating and by teaching parents how to prepare healthier foods through cooking classes. Teachers also serve as role models for healthy eating and discuss with children when new foods are served. Family-style eating

builds interpersonal skills and creates a supportive environment for healthy eating.

POTENTIAL PUBLIC HEALTH IMPACT

Reach: Of the 2,028 children enrolled in all SLCAP Head Start classes during the 2012-2013 school year, 1,339 children (66%) received meals from the Central Kitchen. SLCAP Head Start children not receiving meals from the Central Kitchen attend programs on school district property, and their meals are provided by school nutrition services (See **Adoption** for further explanation). Among the families with children enrolled in SLCAP Head Start, 100% are eligible for free and reduced-priced meals based on family income requirements and almost 50% receive services from the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Thus, the initiative is effective in reaching those most at-risk or in need of high quality, nutritious foods.

Effectiveness: Salt Lake Head Start Central Kitchen conducted a successful pilot using a smaller kitchen prior to opening the new Central Kitchen. Central Kitchen capacity was 300 meals per day during the pilot phase, increasing to 1,500 meals per day in 2009 when the new kitchen was completed, and reaching 3,000 meals per day in 2013. Central Kitchen adopted its own best practices for healthy eating, exceeding those of CACFP. Meals served to Head Start children are expected to meet Central Kitchen's best practices. Since more documentation is needed to establish evidence of effectiveness for this outcome, the Central Kitchen initiative is classified in the emerging dissemination category.

Adoption: Of the 34 SLCAP Head Start sites, 15 sites (44%) received meals from the Central Kitchen during the 2012-2013 school year. Some of the eligible Head Start sites not receiving meals are located on school district property, and meals at these sites are provided by school nutrition services. Efforts are underway to work with the schools to allow meal delivery from the Central Kitchen, and since nine additional sites have been added for 2013-2014, 24 sites or 71% will be served by Central Kitchen. The long-term goal is to provide meals to children in all 34 SLCAP Head Start sites.

Implementation: The information provided indicates that the Central Kitchen has been implemented effectively. Initiative developers suggested several key factors that were important to successful implementation, such as guidance and input from multi-sectoral boards and councils, engagement from various stakeholders (e.g., public and private partners, parents, teachers), and a detailed business plan for funding the construction and equipment. Conducting a pilot test or trial run using a smaller kitchen was beneficial for necessary improvements/revisions prior to opening the Central Kitchen. The Board hired an experienced food service director who could run both the business and the food side of the kitchen. To maintain a successful operation, price negotiations with vendors are as important as the ability to cook in large quantities. The program has created a supportive environment through nutrition-related education for staff, children and parents, and offers parents cooking classes that can provide certification for culinary employment.

Maintenance: The potential to maintain and grow the Central Kitchen is high. It opened in the fall of 2009, serving 1,500 meals a day. By the fall of 2012, the kitchen was serving 2,400 meals a day and plans are in place to provide meals to all children in SLCAP Head Start. The majority of the operating budget (86%) is from CACFP reimbursement, and food costs are budgeted at 50% of the CACFP reimbursement to preserve a revenue-neutral program. The remainder of the operating budget is funded by private companies, in-kind donations, and income-generating

activities (e.g., catering special events, fundraising). Long-term maintenance of the initiative is feasible with CACFP reimbursement for food costs and with financial support from outside sources. Since there is a waiting list of schools wanting to join the program, the Head Start Central Kitchen Initiative is planning to add a second kitchen during the next year.

ADDITIONAL INFORMATION

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