

HEALTHY

**HEALTHY Study Intervention
Program
Nutrition Component
MANUAL**

(released 02/01/2010)

NIDDK | NATIONAL INSTITUTE OF
DIABETES AND DIGESTIVE
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Introduction

The nutrition component of the HEALTHY intervention program targeted making changes throughout the total school food environment. This environment includes:

- federal meal programs such as the School Breakfast Program (SPB), National School Lunch Program (NSLP), After-School Snack Program, and Supper Program
- a la carte venues such as snack bars and school stores
- vending machines
- school fundraisers
- classroom parties and celebrations

The targeted changes were linked to 5 goals:

1. Lower the average fat content of food served in school.
2. Serve at least two servings of fruit and/or vegetables per student on NSLP and one serving per student on SBP per day.
3. Serve all dessert and snack foods with no more than 200 calories per single serving size and/or package.
4. Eliminate milk greater than 1% fat, all other added sugar beverages and 100% fruit juice (100% fruit juice may only be served as 6 ounces or less as part of SBP and/or after-school snacks).
5. Serve at least two servings of grain-based foods and/or legumes, with at least 2 g of fiber per serving per student on NSLP and at least one serving per student on SBP each day.

This manual describes the elements and implementation of the nutrition intervention component during the HEALTHY study:

- For each goal, multiple strategies were developed to change the food and beverage items available to students.
- Educational and promotional activities were held in the schools for the purpose of educating and promoting good nutrition choices and behaviors.
 - Taste tests offered samples of new or unfamiliar items, sometimes in 'competition' with the standard fare.
 - Cafeteria learning laboratories were fun educational activities held in the cafeteria.
- Cafeteria enhancements were introduced and suggested make the food presentation more appealing and enhance its acceptance.
- Messaging about healthy eating was displayed on or near the cafeteria serving lines in either Q&A format or images with tag lines.

More and more schools across the country and the companies that provide them with food and beverages are making healthy changes to the items and products offered. Some changes are voluntary, others are based on policies and regulations. As a result, the total school food environment is evolving on many fronts, and some schools may have already adopted or achieved changes targeted by the HEALTHY intervention program nutrition component.

Also note that the HEALTHY study was a funded research project. A research dietitian on the staff at each field center worked closely with the school and/or district food service staff to implement, guide, and maintain the goals of the nutrition intervention component. Resources

available during the research project may or may not be available to individuals and institutions seeking to implement elements of the HEALTHY intervention program. Modifications may be necessary.

Guidelines for Implementation of the Strategies

The achievement of the strategies influences the achievement of the nutrition intervention component goals. Strategy implementation is an ongoing process and needs to be monitored, repeated, and re-emphasized, particularly given the evolving nature of the total school food environment.

There are two types of strategies:

- Core strategies are designed to be implemented first to effect the goal.
- Toolbox strategies are designed to support the maintenance of the goal over time and to even move beyond the goal if possible. Toolbox strategies have been written to be flexible and accommodating to multiple school environments. The following questions may be helpful when deciding whether or not to employ a particular toolbox strategy:
 - Is the strategy highly likely to help the school achieve and/or maintain the related goal?
 - Is the strategy suitable given the size of the student body, space in the cafeteria and serving line, and so on?
 - If a school has reached a particular goal, does the strategy help the school go “above and beyond” that goal? The toolbox strategies are not considered optional, but rather as ways to continuously improve the nutritional quality of the items offered and served in the schools.

Specific instructions for using the core and toolbox strategies are given in the tables below, along with a statement of intent and guidelines for implementation if needed:

Goal 1: Lower the average fat content food served in school.

Strategy 1.1 Core	Serve French fry type vegetable or flash-fried potato products in serving size of < 200 calories or meal equivalent portion only once per week, either at breakfast or lunch.
Intent of Strategy	Limit the size and frequency of French fries offered/served.
Guidelines for Implementation	<ul style="list-style-type: none"> • Schools limit the number of times they offer/serve pre-fried or flash-fried potato products to once per week, even if the item is baked at the school. (Common flash-fried potato products include French fries, Tater Tots™, hash browns, and fried vegetables.) • These items may only be offered/served one time each week either at breakfast or lunch. • A la carte portions may be equal to the portions offered/served for an SBP or NSLP meal equivalent. • Avoid promotion of targeted products on the day they are allowed (e.g., avoid “French fry day”). • If schools use deep frying machines, their use is to be phased out.
Strategy 1.2 Core	Serve only reduced fat and/or baked chips.
Intent of Strategy	Only reduced fat and baked chips are available.

Guidelines for Implementation	<ul style="list-style-type: none"> Chips must be reduced fat and/or baked as described on the product's packaging. Chips used as an entrée component, like nachos, are to be baked or reduced fat.
Strategy 1.3 Core	Serve only $\leq 1\%$ fat milk.
Intent of Strategy	Only 1% or less milk (including flavored milk) is available.
Guidelines for Implementation	<ul style="list-style-type: none"> All milk offered and served (including flavored milk) must be 1% fat or less. Note that this same strategy is also listed under the beverage nutrition goal 5 (see core strategy 4.1).
Strategy 1.4 Core	Replace the highest fat bread products with lower fat options and/or reduce the frequency served.
Intent of Strategy	Reduce the fat content of bread items, if applicable, and offer/serve healthier options instead.
Guidelines for Implementation	<ul style="list-style-type: none"> If applicable, acquire a Food Buying Guide and use its definitions for bread equivalents; identify bread options on the menu. Rank bread options from highest percent of calories from fat to lowest percent of calories from fat. Note calories per portion and frequency offered/served. Identify those highest in fat and most frequently offered/served and replace them with lower fat equivalents (no need to replace or focus on products that are high in fat but rarely served). In addition, use common sense to increase the quality of foods offered/served as bread equivalents, such as increase fiber and decrease portion size. Repeat this process as needed to identify products in an ongoing effort to decrease fat. Complete this process for bread products available at SBP, NSLP, supper, a la carte, after school snacks, school stores, and vending (if applicable).
Strategy 1.5 Core	Replace the highest fat entrees with lower fat options and/or reduce the frequency served.
Intent of Strategy	Reduce the fat content of entrées and/or reduce the frequency at which higher fat entrées are offered/served to the students.
Guidelines for Implementation	<ul style="list-style-type: none"> Rank entrée options in the following order: <ol style="list-style-type: none"> percent of calories from fat calories per portion number offered/served frequency offered/served Use best judgment to determine which entrees to target and where the highest impact can be made by modifying any of 1) to 4) listed above. For example, if the entrée with the highest percent of calories from fat is only offered/served once per month, it makes a greater impact to modify the next entrée on the list if it is offered/served more often. Once the entrées to be targeted are identified, reduce fat by modifying the recipe, replace the item with a lower fat option (decrease fat by at

	<p>least 10% to 20% calories from fat), and/or decrease the portion size (assure the entrée still meets meal equivalents for bread and protein).</p> <ul style="list-style-type: none"> • Reduce the frequency that higher fat and higher calorie entrées are offered/served. • Repeat this process as needed to identify products in an ongoing effort to decrease fat from entrées. • Complete this process for entrees available at SBP, NSLP, supper, a la carte, and school stores. .
Strategy 1.6 Toolbox	Advocate for additional school-associated food sales (e.g., school stores, fundraisers) to sell only non-food items, non-candy items, or lower fat food options.
Intent of strategy	Encourage non-food rewards and limit exposure to foods that are discouraged by study intervention.
Guidelines for Implementation	<ul style="list-style-type: none"> • Determine which fundraisers are currently being conducted. • Meet with the principal, school council, and/or PTA to first educate them about modifying food items. • Work with appropriate parties (e.g., Parent-Teacher Association [PTA], school council, school principal) to encourage fundraisers that are nonfood, non-candy items.
Strategy 1.7 Toolbox	Conduct taste tests or provide samples of lower fat products to increase exposure and encourage acceptance.
Intent of Strategy	Taste tests create attention and exposure around these foods to promote and increase consumption.
Guidelines for Implementation	<ul style="list-style-type: none"> • See the section on taste tests below.

Goal 2: Serve at least 2 servings of fruit and/or vegetables per student on NSLP and 1 serving per student on SBP per day.

Strategy 2.1 Core	Serve at least three different fruits and/or vegetables at NSLP every day.
Intent of Strategy	Increase the number and variety of fruits and vegetables that are offered/served to students.
Guidelines for Implementation	<ul style="list-style-type: none"> • Vary the foods from day to day and try to offer/serve different items than are offered/served at breakfast and lunch.
Strategy 2.2 Core	Serve at least two different fruits and/or vegetables at SBP every day.
Intent of Strategy	Increase the number and variety of fruits and vegetables that are offered/served to students.
Guidelines for Implementation	<ul style="list-style-type: none"> • Listed below are fruits and vegetables that meet this strategy: <ul style="list-style-type: none"> ○ All fruits/vegetables including raw, canned, dried and frozen (examples: oranges, canned peaches, sliced apples, and frozen broccoli). ○ 100% fruit juice (only 6 ounces or less as part of SBP and/or after-school snacks). ○ All canned commodity vegetables and fruits, including fruit canned in heavy syrup, light syrup, or its own juice. ○ Fruit with sugar added ONLY if the sugar is in a minimal amount to enhance taste and does not qualify as a dessert like a pie or cobbler.

	<ul style="list-style-type: none"> ○ Fruits and vegetables that are components of entrées (such as lettuce and tomato served with sandwiches, tomato paste/sauce). ○ Mashed potatoes, baked potatoes, and potato wedges (not flash fried). ● Listed below are fruits and vegetables that do not meet this strategy: <ul style="list-style-type: none"> ○ Fried vegetables. ○ 100% fruit juice (except for 6 ounces or less at SBP and/or after-school snacks). ○ Fruit with sugar added if more than a minimal amount to enhance taste, such as for a dessert pie or cobbler. ○ Fruit candies, chews, leathers, fruit bars, and soft fruit confections.
Strategy 2.3 Toolbox	Serve at least one fruit or vegetable at a la carte and school stores (if applicable) every day.
Intent of Strategy	Increase the number and variety of fruits and vegetables that are offered/served to students.
Guidelines for Implementation	<ul style="list-style-type: none"> ● Vary the foods from day to day and try to offer/serve different items than are offered/served at breakfast and lunch. ● Refer to lists in strategy 2.2.
Strategy 2.4 Toolbox	Collaborate with school-wide communications and promotional efforts to promote consumption of fruits and vegetables.
Intent of Strategy	Increase consumption by raising awareness of the availability of these foods within the school.
Guidelines for Implementation	<ul style="list-style-type: none"> ● Acquire posters and other visuals around the school that encourage consumption of fruits and vegetables at school as well as outside of the school setting (such as on the way home from school and at home). ● Submit announcements about new and different food and beverages offered.
Strategy 2.5 Toolbox	Enhance the presentation and packaging of fruits and vegetables to increase desirability.
Intent of Strategy	Increase the appeal and visibility of these foods in the total school food environment.
Guidelines for Implementation	<ul style="list-style-type: none"> ● Collaborate with food service to assess ways to alter the current presentation and packaging of these foods throughout the school. ● Questions pertinent to implementation: <ul style="list-style-type: none"> ○ Can the food service department purchase equipment that enhances the presentation or simplify the preparation of these foods such as clear containers for shaker salads or a tool that slices oranges or apples? ○ Are these foods arranged and displayed in a way that emphasizes their “best qualities”? What changes would better showcase these foods? ○ Are these foods available in vending machines? If so, position them to increase their visibility. Can the packaging of these foods in vending be altered to improve visibility and showcase their “best qualities”? ○ Can the flow of students into and out of the cafeteria be altered to indirectly enhance the visibility of these foods? Or can these foods be moved to a more visible location on the serving line?
Strategy 2.6 Toolbox	Lower the price of fruits and vegetables that are served a la carte and at school stores (if applicable).

Intent of Strategy	Increase the likelihood that students buy these foods a la carte and at school stores.
Guidelines for Implementation	<ul style="list-style-type: none"> Identify fruits and vegetables offered/served a la carte and at school stores. Strategize with appropriate school food service staff to lower the price of these foods. Determine which prices of a la carte/school store foods from these two groups may be lowered and to what degree. Work with the food service manager to advertise the reduced pricing. Offer samples or taste tests of these foods being offered at a reduced price to promote sales/service of these items. Be creative in looking for opportunities to make these foods as offered a la carte be part of a reimbursable meal (such as by adding yogurt to fruit or offering milk with fruit).
Strategy 2.7 Toolbox	Conduct taste tests or provide samples of fruits and vegetables to increase exposure and encourage acceptance.
Intent of Strategy	Taste tests create attention and exposure around these foods to promote and increase consumption.
Guidelines for Implementation	<ul style="list-style-type: none"> See the section on taste tests below.
Strategy 2.8 Toolbox	Incorporate fruits and vegetables into entrées (such as chef salads, cottage cheese and fruit platters).
Intent of Strategy	Increase consumption of fruits and vegetables through entrées.
Guidelines for Implementation	<ul style="list-style-type: none"> Identify where entrées containing these foods may be incorporated into the total school food environment. Keep in mind that entrées need to be offered/served as part of reimbursable meals and that, depending on the menu planning approach; a protein and bread equivalent may need to be added. Brainstorm ideas with the food service manager. Increase the vegetable component of the entrée significantly so it counts as a vegetable serving (such as adding more broccoli to a rice bowl or pizza slice).
Strategy 2.9 Toolbox	Increase the offering of fruits and vegetables in areas beyond the standard school food service.
Intent of Strategy	Increase the availability of fruits and vegetables throughout the school.
Guidelines for Implementation	<ul style="list-style-type: none"> Examples of areas are vending, fundraisers, teacher or classroom snack events, and catered events for school functions such as back-to-school night. Identify possible areas in which there is an opportunity to offer these foods and work with the appropriate individuals to increase the offerings (such as the vending machine vendors, PTA members, teachers, and principals).

Goal 3: Serve all dessert and snack foods with ≤ 200 calories per single serving size and/or package.

Strategy 3.1	Modify dessert and snack food offerings to ≤ 200 calories per single serving
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Core	size package and/or serving, excluding nuts and seeds.
Intent of Strategy	Limit all desserts and snack foods to ≤ 200 calories per single serving size package and/or serving.
Guidelines for Implementation	<ul style="list-style-type: none"> • All dessert and snack foods offered in the total school environment (other than at after-school snacks – see strategy 3.2) are in single serving size packages or single servings and contain ≤ 200 total calories per package and/or serving. • Nuts and seeds (including trail mix) should not exceed 230 calories per single serving/package. • If a dessert or snack food is prepared and portioned by food service, assure the served portion is ≤ 200 calories by either recipe and/or serving size modification. • Chips (even with reduced fat or baked) must not exceed 200 calories per single serving size package or serving as verified by the nutrition label.
Strategy 3.2 Toolbox	Modify dessert and snack food offerings for the After-School Snack Program to ≤ 200 calories per single serving size package and/or serving, excluding nuts and seeds.
Intent of Strategy	Extend core strategy 3.1 to the After-School Snack Program.
Guidelines for Implementation	<ul style="list-style-type: none"> • Same as strategy 3.1.
Strategy 3.3 Toolbox	Eliminate all candy sold within the school.
Intent of Strategy	Eliminate opportunities throughout the school to purchase candy.
Guidelines for Implementation	<ul style="list-style-type: none"> • Eliminate all candy served within the school. Candy is defined as any of a number of various confections, soft and hard, composed mainly of sugar, with the addition of flavoring ingredients and fillings such as chocolate, nuts, peanut butter, nougat, fruits, fruit chews, and so on. • Candy must be eliminated from vending machines within the school, even if the vending machines are not available to the students during the school day. • Work with appropriate parties (such as the PTA, school council, school principal) to encourage fundraisers to gradually eliminate candy items. Encourage healthier items such as fruits, vegetables, and whole grains/grain-based foods or non-candy items for a replacement.
Strategy 3.4 Toolbox	Include fruits, vegetables, dairy, grains, or protein food components as options for desserts and snack foods.
Intent of Strategy	At every opportunity, replace lower nutrient quality snack foods with higher nutrient quality snack foods.
Guidelines for Implementation	<ul style="list-style-type: none"> • Increase offerings of fruits, vegetables, dairy, grain-based, and protein foods to replace or modify recipes of lower nutrient quality dessert and snack foods. • Examples of recipe modifications to implement this strategy are reducing the fat or sugar in a cookie recipe or adding flax seed to brownies. • The intent is not to eliminate all dessert and snack foods but to increase the nutrient quality of the dessert and snack foods offered. • Examples of lower nutrient quality snack foods that are to be replaced by

	higher nutrient quality options include ≤ 200 calorie portions of brownies, cookies, cakes, chips, and/or other snack foods of minimal nutritional value.
Strategy 3.5 Toolbox	Conduct taste tests or provide samples of new dessert and snack foods to encourage acceptance.
Intent of Strategy	Increase student exposure to new and nutrient-dense dessert and snack food products.
Guidelines for Implementation	<ul style="list-style-type: none"> See the section on taste tests below.

Goal 4: Eliminate milk > 1% fat, all other added sugar beverages, and 100% fruit juice (100% fruit juice may only be served as < 6 ounces as part of SBP and/or after-school snacks).

Strategy 4.1 Core	Serve only <1% fat milk.
Intent of Strategy	The total school food environment should offer and serve only 1% or less milk (including flavored milk).
Guidelines for Implementation	<ul style="list-style-type: none"> All milk (including flavored milk) offered and served must be 1% fat or less.
Strategy 4.2 Core	Eliminate all added sugar beverages.
Intent of Strategy	Beverages with added sugar should not be available in the total school food environment so that students are more likely to buy or select milk and water.
Guidelines for Implementation	<ul style="list-style-type: none"> Gradually eliminate any beverages with added sugar (excluding 1% or less milk). The vending area and pouring contracts may be significant barriers. At the very least, it may be possible to reduce student exposure to the beverages by negotiating with the school to turn the machines off during the school day. Pouring contracts can still be honored if product selection is appropriately altered, such as by replacing a company's soda products with their bottled water.
Strategy 4.3 Core	Eliminate 100% fruit juice from vending, a la carte, school stores, and NSLP, and limit 100% fruit juice at SBP to < 6 ounces.
Intent of Strategy	Reduce student intake of 100% fruit juice and promote whole fruit consumption as a healthier option.
Guidelines for Implementation	<ul style="list-style-type: none"> Gradually eliminate 100% fruit juice from vending, a la carte, school stores, and NSLP and limit 100% fruit juice at SBP to 6 ounces or less.
Strategy 4.4 Toolbox	Limit 100% fruit juice AT AFTER-SCHOOL SNACKS to < 6 ounces.
Intent of Strategy	Extend core strategy 4.3 to the After-School Snack Program.
Guidelines for Implementation	<ul style="list-style-type: none"> Same as strategy 4.3.
Strategy 4.5 Toolbox	Limit portion size of <1% fat flavored milk to ≤ 12 ounces.
Intent of Strategy	Eliminate large portions of sweetened and/or high fat milk.

Guidelines for Implementation	<ul style="list-style-type: none"> • Search the total school food environment to identify milk service/sales. • Gradually eliminate the large portions of sweetened and/or high fat milk from the total school environment.
Strategy 4.6 Toolbox	Serve bottled water in the total school food environment.
Intent of Strategy	Make water available to students at as many points of service as possible.
Guidelines for Implementation	<ul style="list-style-type: none"> • Make water available at as many points of service as possible, including a la carte and vending.
Strategy 4.7 Toolbox	Serve bottled water in the total school food environment.
Intent of Strategy	Eliminate added sugar beverages and >1% fat milk.
Guidelines for Implementation	<ul style="list-style-type: none"> • Consult with school district contacts to identify responsible party or parties for vending relations. • Work with identified party or parties to modify products to meet study goals.
Strategy 4.8 Toolbox	Lower the price of water to promote service/sales.
Intent of Strategy	Increase water consumption.
Guidelines for Implementation	<ul style="list-style-type: none"> • Identify who is responsible for product pricing. • Persuade administration to lower the price, to make water competitive with other beverages and appealing to students. • Examples are: <ul style="list-style-type: none"> ○ Suggest selling ½ pint bottles (small size may be trendy and appealing to students and are lower in price). ○ Suggest a trial run of the new pricing for a limited time to gain buy-in. Re-evaluate after trial period to determine sustainability or need for additional promotions. ○ Advertise/market lower priced bottled water to students
Strategy 4.9 Toolbox	Advocate clean, safe drinking water be available throughout the school at no cost to students.
Intent of Strategy	Increase access to free water.
Guidelines for Implementation	<ul style="list-style-type: none"> • Identify working fountains or water dispensers in the school environment. • Identify who is responsible for maintaining and resolving water issues (such as the principal and/or custodian). • Work with school staff to resolve issues with non-functioning fountains or water dispensers (too warm, little or no water flow). • Work with school staff to facilitate installation of dispensed water if water fountains are not available or not functioning. When emptied, assure water dispensers are replaced on a timely schedule so that water is available. • Create signage and promotional strategies to market use of the water fountains.
Strategy 4.10 Toolbox	Serve a variety of <1% fat flavored milk in SBP and NSLP.

Intent of Strategy	Increase the variety and likelihood of students selecting <1% fat flavored milk.
Guidelines for Implementation	<ul style="list-style-type: none"> • With the assistance of food service staff, work to identify a variety of flavored <1% fat milks that could be offered/served. • Observe student selection to help decide which flavors are most accepted by students, and work to incorporate those flavors regularly at SBP and NSLP. • Non-flavored milk that is <1% fat is optimal. However, offering flavored milk that is <1% fat in limited portions is also an acceptable way to introduce and encourage students to drink milk.

Goal 5: Serve at least 2 servings of grain-based foods and/or legumes (≥ 2 grams [g] of fiber per serving) per student on NSLP and at least 1 serving per student on SBP each day.

Strategy 5.1 Core	Serve at least three different high fiber grain-based foods and/or legumes (≥ 2 g fiber/serving) at NSLP every day.
Intent of Strategy	Increase the number and variety of fiber rich grain-based foods and legumes that are offered/served to students.
Guidelines for Implementation	<ul style="list-style-type: none"> • “Legumes” are defined as any food with dried beans/peas or peanut products listed in any order in the ingredient list. • Avoid adding additional fiber rich grain-based foods and legumes to the menu because this also adds unwanted calories and costs for students and school food service, respectively. Instead, modify existing recipes and/or replace existing menu items.
Strategy 5.2 Core	Serve at least two different high fiber grain-based foods and/or legumes (>2 g fiber/serving) at SBP every day.
Intent of Strategy	Increase the number and variety of fiber rich grain-based foods and legumes that are offered/served to students.
Guidelines for Implementation	<ul style="list-style-type: none"> • Same as strategy 5.1.
Strategy 5.3 Toolbox	Serve at least one fiber rich grain-based food or legume at a la carte and school stores (if applicable) every day.
Intent of Strategy	Increase the number and variety of fiber rich grain-based foods and legumes that are served to students.
Guidelines for Implementation	<ul style="list-style-type: none"> • Vary the foods from day to day and try to offer/serve different items than are served at breakfast and lunch.
Strategy 5.4 Toolbox	Collaborate with school-wide communications and promotional efforts to promote consumption of fiber rich grain-based foods or legumes.
Intent of Strategy	Increase consumption by raising awareness of the availability of these foods within the school.
Guidelines for Implementation	<ul style="list-style-type: none"> • Acquire posters and other visuals around the school that encourage consumption of fiber rich grain-based foods and legumes at school as well as outside of the school setting (such as on the way home from school and at home). • Submit announcements about new and different food and beverages offered.
Strategy 5.5 Toolbox	Enhance the presentation and packaging of fiber rich grain-based foods and legumes to increase desirability.

Intent of Strategy	Increase the appeal and visibility of these foods in the total school food environment.
Guidelines for Implementation	<ul style="list-style-type: none"> • Collaborate with food service to assess ways to alter the current presentation and packaging of these foods throughout the school. • Questions pertinent to implementation: <ul style="list-style-type: none"> ○ Can the food service department purchase equipment that enhances the presentation or simplify the preparation of these foods, such as lined baskets for whole grain breads and crackers? ○ Are these foods arranged and displayed in a way that emphasizes their “best qualities”? What changes would better showcase these foods? ○ Are these foods available in vending machines? If so, position them to increase their visibility. Can the packaging of these foods in vending be altered to improve visibility and showcase their “best qualities”? ○ Can the flow of students into and out of the cafeteria be altered to indirectly enhance the visibility of these foods? Or can these foods be moved to a more visible location on the serving line?
Strategy 5.6 Toolbox	Lower the price of fiber rich grain-based foods and legumes that are served a la carte and at school stores (if applicable).
Intent of Strategy	Increase the likelihood that students buy these foods a la carte and at school stores.
Guidelines for Implementation	<ul style="list-style-type: none"> • Identify fiber rich grain-based foods and legumes, if any, that are offered/served a la carte and at school stores. • Strategize with appropriate school food service staff to add these foods to a la carte and school stores, if not already offered/served. • Determine which prices of these foods offered/served in a la carte/school stores may be lowered and to what degree. • Work with the food service manager to advertise the reduced pricing. • Offer samples or taste tests of these foods being offered at a reduced price to promote sales/service of these items. • Be creative in looking for opportunities to make these foods as offered a la carte be part of a reimbursable meal.
Strategy 5.7 Toolbox	Conduct taste tests or provide samples of fiber rich grain-based foods and legumes to increase exposure and encourage acceptance.
Intent of Strategy	Taste tests create attention and exposure around these foods to promote and increase consumption.
Guidelines for Implementation	<ul style="list-style-type: none"> • See the section on taste tests below.
Strategy 5.8 Toolbox	Incorporate fiber rich grain-based foods and legumes into entrées (such as brown rice and bean burritos, whole wheat pizza, brown rice bowls).
Intent of Strategy	Increase consumption of fiber rich grain-based foods and legumes through entrées.
Guidelines for Implementation	<ul style="list-style-type: none"> • Identify where entrées containing these foods may be incorporated into the total school food environment. Keep in mind that entrées need to be offered as part of reimbursable meals and that, depending on the menu planning approach, a protein and/or bread equivalent may need to be added.
Strategy 5.9	Increase the number of fiber rich grain-based foods and legumes that are

Toolbox	served in areas beyond the standard school food service.
Intent of Strategy	Increase the availability of fiber rich grain-based foods and legumes throughout the school.
Guidelines for Implementation	<ul style="list-style-type: none"> • Examples of areas are vending, fundraisers, teacher or classroom snack events, and catered events for school functions such as back-to-school night. • Identify possible areas in which there is an opportunity to offer these foods and work with the appropriate individuals to increase the number offered/served (such as the vending machine vendors, PTA members, teachers, and principals).

Cafeteria Learning Laboratory

The Cafeteria Learning Lab (CLL) is a fun and engaging nutrition learning experience for students. The purpose is to teach students why specific changes are made to the foods and beverages served in the school environment and how these changes promote healthier eating habits. The focus is to promote the corresponding study theme. Each CLL activity is designed so that it is appropriate for most cafeteria environments; however, some modifications might be required at each school.

Each CLL activity features one key message, consistent with the nutrition goals and the intervention theme, as a ‘teaching point’. The activities include visuals such as posters and a hands-on component or a challenge for students to test themselves. Posters and PA announcements may be used to build excitement for the activities before they take place.

The CLL is presented during the lunch hour and takes place in the cafeteria or a nearby area that is highly visible and accessible to students. Some of the CLL activities take place over two days, for example, presenting the activity and asking a question or holding a test on the first day and providing an answer and follow-up on the second day. Most take place during one day. However, given the crowds at lunch and the short amount of time students have to eat, expect each student to spend no more than 5-10 minutes engaged in the activity.

The CLL activities are:

1. The [Not So] Sweet Truth is conducted during the winter/spring of the 6th grade linked to the theme ‘Water versus Added-Sugar Beverages’. The activity is intended to support changes in student beverage consumption (more water and less added-sugar beverages).
2. Snactive – Snack Smart and Be Active is conducted during the fall of the 7th grade linked to the theme ‘Physical Activity versus Sedentary Behavior’. The activity is intended to help students visualize the difference in the amount of time it takes to burn off calories of different types of food.
3. Nutrition Label Line Up is conducted during the winter/spring of the 7th grade linked to the theme of ‘Healthy Eating’. The activity is intended to reinforce using Nutrition Facts labels to choose healthier snacks.
4. Choose a Healthy Portion That is the Size of One Hand is conducted during the fall of the 8th grade linked to the of ‘Energy Balance’. The activity is intended to reinforce portion distortion and ‘energy in’ as related to portion size.



5. Be Strong, Live Healthy is conducted during the winter/spring of 8th grade linked to the theme of 'Strength, Balance, and Choice for Life'. The activity is intended to reinforce what students have learned in the HEALTHY study about healthy lifestyle choices.

CLL Activity 2 is described more extensively as an example of what can be done. This activity is conducted during the fall of the 7th grade linked to the theme 'Physical Activity versus Sedentary Behavior'. The activity is intended to help students visualize the difference in the amount of time it takes to burn off calories of different types of food.

Game cards are handed out to the students during their lunch periods. The card asks the students to guess how long it would take to burn off calories of each of the food items on the card. The students draw a line from the picture of the food to the amount of minutes listed on the card. The cards are collected and winners selected (random drawing from among correct responses).

An optional activity depends on the capabilities at the school/site, taking into consideration the size of the student body, layout of the cafeteria, and possible challenges due to crowding. It involves setting up a space in or near the cafeteria with three stations, each with either a jump rope or stair stepper. Recruit a volunteer for each station, e.g., teachers, school staff, students. Each station has a sign telling the students which food the volunteer is trying to burn off and how long the volunteer will have to jump rope or stair step. The foods used come from the game card, just smaller portion sizes. For example, station 1 volunteer demonstrates how long it takes to burn off 10 baked chips instead of the whole bag.

Steps are:

1. Secure a date for the event. Consult with the proper school officials to make sure the event date works with school schedules.
2. Acquire materials and supplies. The table below is a list of materials needed to complete the event. See graphics of the announcement poster, game card, and winner poster below the table.

CLL Activity 2 List of Materials and Supplies
Game cards (1 per student)
Pencils (to complete game card)
Receptacle to collect game cards
Announcements of upcoming event (posters, public address messages, staff e-mails)
Announcements of winners (posters public address messages)
Disposable/digital cameras to record event (optional)
Washable self-inking hand stamps (optional)
Notification of winners (prizes optional)
Supplies (tape, trashcans, tables and chairs)
Microphone (optional)
Music (optional)
Stair steppers or jump ropes (optional)

Announcement Poster



Winner Poster



Game Cards



3. Conduct an onsite visit to become familiar with the area and strategize how the event is executed. Remind the school staff about the upcoming event and let them know about any additional help that you may need.
4. Display the announcement posters, start public address messages, and other promotions a week before the event to develop interest.
5. On the day of the event, arrive at the cafeteria with enough time to set up and give instructions for encouraging students to participate, passing out cards, stamping the students hands, taking pictures, etc.
6. After the students arrive in the lunch area, start to distribute the game pieces and pencils to all students and encourage participation in the event. Explain the general concept of the game card and remind students to write their names and grades on the front.
7. Collect the completed game cards in the receptacles and stamp the back of the student's hand with the washable self-inking stamp (optional) as proof of participation.
8. After the event, gather up CLL event items and clean up.
9. Tally the winners. Insert their names on the winner poster. If some prizes are available, use a random selection process to identify who gets a prize and contact the students.
10. Post the winner poster and announce via the public address system if possible.

Taste Test

Taste tests are food samplings for the entire school. Each school decides what items to offer for taste tests. The purpose of the taste test events is to promote student interest in and acceptance of potential new food products to be made available in the school environment. This is needed to demonstrate to school and food service administration that the new food or beverage item would be accepted by students.

Each taste test event gives the students an opportunity to taste new foods in hopes that they are more likely to select these items in the school food environment (such as on the lunch, breakfast, or a la carte lines or in vending) and outside of school (such as at fast food restaurants, convenience stores, or at home). The taste test can offer multiple flavors of the same product, compare a new product to a standard product (e.g., bottled water versus water fountain), etc.

Steps to prepare for and conduct a taste test event:

1. Select food(s) and/or beverage(s) to taste. One or several different products may be offered for sampling at each taste test. Criteria for selecting each product to be sampled are listed below:
 - a. The school's food service department tastes and approves the product for sampling and reviews preparation instructions and recipe, if applicable.
 - b. The product is consistent with the nutrition goals.
 - c. The product is available through a distributor that works with the school.

- d. The distributor provides an approximate cost of the product. The cost needs to be acceptable to the food service department to carry regularly.
- e. Ideally, vendors provide samples at no cost; otherwise test products are purchased.

Based on the above criteria, the items selected for taste tests should be those that the school is prepared to serve. However, you may want students to sample some unusual fruits and vegetables that the school would not be able to serve but that would nonetheless expose students to fruit and vegetable variety and healthy options for consumption outside of school.

2. Determine at which meal service the taste test is to be conducted. The products selected for taste test can be sampled at breakfast and/or lunch. Other opportunities may exist to sample products, such as school stores.
3. Select a date for the taste test. Discuss with the food service manager, district food service staff, and principal days of the week that would work best for the food service staff and the student population. You may need to consult other school staff to determine dates and times of events that may be taking place in the school that could conflict with the taste test.
4. Identify an area to conduct the taste test. Discuss with the food service manager, district food service staff, and school personnel the best place to station the taste test. Some ideas could include positioning yourself directly on the serving line so each student coming through the line would receive a sample, or carrying samples throughout the cafeteria to reach students who may not go through the serving line. In addition, areas could be set up as stations for students to participate in the taste test at their convenience.
5. Determine the number of staff needed. Based on the food product(s) selected you will need to determine the number of staff and at which time you will need staff to assist with the taste test. The number of staff needed will depend on the number of students expected at the meal, type, and number of products being sampled at the taste test.
6. Arrange for supplies. Depending on the type of food product(s) to be tasted, supplies should be ordered to help with sampling. Napkins, soufflé cups, small plates or bowls, and plastic utensils may be needed for the event. Other supplies needed for the taste test may include table cloth, taste test slips, and pencils.
7. To promote taste tests you may use some of the following:
 - a. Arrange for announcements to be made at school for promotion, through the public address system, newsletters, or flyers.
 - b. Create signs, posters, and other graphics for display.
 - c. Create taste test voting slips (see graphic below).
 - d. Send reminder e-mails to school staff or put a card in mailboxes.
8. Arrange for kitchen space. Discuss with food service staff to determine an area for preparation, oven use, and freezer/refrigeration space as needed.
9. Maintain a checklist. The example checklist below can be expanded with additional information and space to confirm task accomplishment as needed.

Taste Test Event Checklist	
Date of taste test	
Time preparations start	
Time taste test starts	
Type of product	<input type="checkbox"/> Food <input type="checkbox"/> Beverage
Name of product(s)	1. _____ 2. _____ 3. _____
Meal	<input type="checkbox"/> Breakfast <input type="checkbox"/> Lunch
Number of students expected	
Number of staff needed (keep list of names and assigned task)	
Supplies needed	<input type="checkbox"/> Stand alone poster board <input type="checkbox"/> Tables <input type="checkbox"/> Table cloths <input type="checkbox"/> Napkins <input type="checkbox"/> Cups <input type="checkbox"/> Bowls <input type="checkbox"/> Plates <input type="checkbox"/> Spoons <input type="checkbox"/> Forks <input type="checkbox"/> Voting slips <input type="checkbox"/> Ballot boxes <input type="checkbox"/> Pencils <input type="checkbox"/> Clean-up supplies <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
Promotion and announcement	<input type="checkbox"/> Public address messages <input type="checkbox"/> Posters <input type="checkbox"/> Flyers <input type="checkbox"/> Newsletter article <input type="checkbox"/> E-mails

	<input type="checkbox"/> _____
	<input type="checkbox"/> _____
	<input type="checkbox"/> _____

10. On the day of the taste test, be prepared for organized chaos that nevertheless is lots of fun! Direct staff. Set up the scene with visuals, tables, voting slips and pencils, etc. Prepare the product. Observe both visually and verbally for comments from the students and food service staff about the products being taste tested. Summarize taste test ballots for acceptability.
11. Also be prepared to disassemble, clean up, and dispose of leftovers at the end of the taste test.
12. Follow-up involves a debriefing and evaluation of what went well, what didn't go so well, how people reacted, etc. in order to plan better in the future. Also count the taste test voting slips. Post results, if appropriate. Share results with the food service manager or director, school administration, and other interested parties with a stake in incorporating the product the school food environment.

HEALTHY

TASTE TEST:

Please Vote for One



Like it A Lot



OK



Don't Like

HEALTHY

TASTE TEST:

Please Vote for One



Like it A Lot



OK



Don't Like

HEALTHY

TASTE TEST:

Please Vote for One



Like it A Lot



OK



Don't Like

Cafeteria Line Messages

Messages for display in the cafeteria were developed to correspond with each intervention theme. The messages are related to the nutrition goals and are to be displayed on or near the cafeteria line, or other places in the cafeteria deemed effective, in consultation with the principal and/or the food service manager. Some messages were developed to be displayed in pairs while others can stand alone. The paired messages are in a question-and-answer format, intended to the question to be displayed at the beginning of the line while the answer is displayed at the end. The stand alone messages are easily displayed in any high flow area. The messages offer nutrition tips, reinforce behavioral goals, or offer 'quizzes' about nutrition concerns.

The messages are printed on letter sized paper with a decorative border and the study logo. At least 10 messages (or message pairs) are displayed during each theme period and for no longer than 2 weeks with no more than two different messages displayed in a single week. The messages are displayed in as many logical places as possible in using various methods (e.g., clear table-top holders, on the wall, from the ceiling). Enhanced display of messages is encouraged. Examples of final messages are displayed below.

