

Food Service Facts

Table of Contents

16. Menu Planning and Nutrition Standards for School Meals

Background.....	16-1
Nutrition and Your Health – Dietary Guidelines for Americans.....	16-1
Three Major Goals	16-2
Planning Healthy School Meals	16-2
Nutrition Standards for School Meals	16-2
Breakfast Meal Pattern Requirements.....	16-3
Lunch Meal Pattern Requirements.....	16-3
Basic Menu Planning Principles	16-4
Strive for Balance.....	16-4
Offer Variety in Shapes and Sizes	16-4
Offer Variety in Flavor	16-4
Offer Choices.....	16-5
Make Menus Colorful	16-5
Add Contrast.....	16-5
Marketing Menus.....	16-5
Menu Planning Evaluation.....	16-6
Best Practice Ideas to Meet the Nutrition Standards for School Meals	16-6

16. Menu Planning and Nutrition Standards for School Meals

Background

Careful menu planning is an important key to a successful Child Nutrition Program. It is the foundation for serving school meals that meet nutrition targets, appeal to students and fulfill all requirements for reimbursement. The menu also influences almost every aspect of the food service operation from which foods are purchased to the amount of labor required to prepare the food.

Heart disease, cancer, diabetes, stroke and osteoporosis are the leading causes of death and disability among Americans. Obesity is increasingly prevalent among American children. Most experts agree that a healthful diet combined with exercise can help to prevent chronic diseases. Unfortunately, many Americans, including children, are not making healthful food choices. The American diet is often low in whole grains, fruits and vegetables, and too high in fats and sweets. This can result in consumption of excess calories and too much fat, cholesterol and sodium.

School nutrition programs play an important role in the health of school children. The programs not only improve the nutritional well-being of the student but also model the foods that should be eaten for a balanced diet.

The Dietary Guidelines for Americans (DGA) are designed to help us choose diets that will meet nutrient requirements, promote health, support active lives, and reduce chronic disease risks. Federal law requires school lunch and breakfast programs to comply with the current recommendations of the DGA. The current Dietary Guidelines are summarized below.

Nutrition and Your Health – Dietary Guidelines for Americans Sixth Edition, 2010

The *2010 Dietary Guidelines for Americans* (www.cnpp.usda.gov/dietaryguidelines.htm) focus on balancing calories with physical activity, and encourage Americans to consume more healthy foods like vegetables, fruits, whole grains, fat-free and low-fat dairy products, and seafood, and to consume less sodium, saturated and *trans* fats, added sugars, and refined grains.

Three Major Goals

- ◆ Balance calories with physical activity to manage weight
- ◆ Consume more of certain foods and nutrients such as fruits, vegetables, whole grains, fat-free and low-fat dairy products, and seafood
- ◆ Consume fewer foods with sodium (salt), saturated fats, *trans* fats, cholesterol, added sugars, and refined grains

During children's developmental years, there are opportunities to promote and influence healthy food choices through school meals. For many children, school meals make a significant contribution to their total day's nutrient intake. School meals offer a variety of foods to reflect the cultural diversity and changing needs of students. Menu planners have a tremendous opportunity to improve the health of American children by serving healthier meals.

Planning Healthy School Meals

The concept of a healthy school meal encompasses more than just meeting the DGA. It also means meeting the following additional goals:

1. Apply culinary principles of taste and presentation.
2. Focus on the customers served, incorporating regional, cultural, ethnic and other preferences.
3. Provide safe meals for children.
4. Make meals accessible to all children.
5. Reinforce classroom nutrition education by providing a "learning laboratory" in the cafeteria for healthy food choices.
6. Assist in increasing appreciation for food origins, cultural food history, variety of foods and the relationship of food to the environment and agriculture.
7. Support and teach the principles of the "social meal".
8. Provide education in the preparation and service of healthy, economical meals.
9. Create a positive, supportive environment with adequate time for meal service.
10. Link with the school wellness policy promoting healthy food choices throughout the school.

Nutrition Standards for School Meals

A food based menu planning system is based on a meal pattern containing specific food group components. Food group components must be served in specific amounts to meet nutrition goals. These components are meat/meat alternate, vegetables, fruits, grains and milk.

Schools must offer the food components in specified quantities. Portion sizes are established for three age/grade groups.

Detailed information about menu planning can be found at www.kn-eat.org, School Nutrition Programs, Guidance, Menu Planning and Production Records.

Breakfast Meal Pattern Requirements

	Grades K-5	Grades 6-8	Grades 9-12
	Amount of Food Per Week (Minimum Per Day)		
Fruits (cups)	5 (1)	5 (1)	5 (1)
Grains (oz eq)	7 (1)	8 (1)	9 (1)
Meats/Meat Alternates (oz eq)	No Requirement	No Requirement	No Requirement
Fluid Milk (cups)	5 (1)	5 (1)	5 (1)
Dietary Specifications: Daily Amount Based on the Average for a 5-Day Week			
Min-Max calories (kcal)	350-500	400-550	450-600
Saturated Fat (% of total calories)	< 10	< 10	< 10
Sodium (mg)	≤540	≤600	≤640
Trans fat	Nutrition label or manufacturer specifications must indicate zero grams of trans fat per serving.		

Lunch Meal Pattern Requirements

	Grades K-5	Grades 6-8	Grades 9-12
	Amount of Food Per Week (Minimum Per Day)		
Fruits (cups)	2.5 (.5)	2.5 (.5)	5 (1)
Vegetables (cups)	3.75 (.75)	3.75 (.75)	5 (1)
Dark green	.5	.5	.5
Red/Orange	.75	.75	1.25
Beans/Peas (Legumes)	.5	.5	.5
Starchy	.5	.5	.5
Other	.5	.5	.75
Additional Vegetables needed to meet weekly requirement	1	1	1.5
Grains (oz eq)	8-9 (1)	8-10 (1)	10-12 (2)
Meats/Meat Alternates (oz eq)	8-10 (1)	9-10 (1)	10-12 (2)
Fluid milk (cups)	5 (1)	5 (1)	5 (1)
Dietary Specifications: Daily Amount Based on the Average for a 5-Day Week			
Min-Max calories (kcal)	550-650	600-700	750-850
Saturated Fat (% of total calories)	< 10	< 10	< 10
Sodium (mg) SY 14-15 target	≤ 1230	≤ 1360	≤ 1420
Trans fat	Nutrition label or manufacturer specifications must indicate zero grams of trans fat per serving.		

Basic Menu Planning Principles

Across Kansas, schools are offering meals in a variety of interesting formats ranging from simple boxed lunches to choice bars. Just as school lunches and breakfasts come in many formats, so do the foods that go into them. Advances in food technology make it possible to select foods in many forms—frozen or chilled, partially or totally prepared, pre-portioned or in bulk, pre-prepared or as single ingredients to assemble recipes.

All this makes menu planning exciting as well as challenging. It takes skill and practice to design a great menu. It also takes wide knowledge of foods including their nutritive value, cost and the many different methods for preparing and serving them. The menu planner needs knowledge of the students being served including their nutritional needs, food likes, dislikes and habits as influenced by their race, culture and customs. A good menu planner needs to be aware of the arrangement of the kitchen and serving areas, the equipment, the abilities of the employees, the style of service and the amount of money provided in the budget. Outside factors such as the season of the year, the climate, and the availability of foods will influence the menus planned. It is important to understand how to combine food items so that customers are eager to come to the cafeteria and eat.

The basic menu planning principles listed on the following pages are a good starting point. These principles should be kept in mind as menus are planned to meet the customers' preferences and nutritional needs.

Strive for Balance

Menus should be planned so that they are nourishing, appealing to students and taste good. Combine foods in ways that help meet the nutrient standards, balance flavors in appealing ways, and offer a balance of color, flavor, texture, shapes and size. Balance higher fat foods with ones that have less fat.

To balance flavor, use a combination of mild and strong flavored foods. Too many foods with strong flavors in the same meal may result in a meal that is unacceptable to the students.

Care must also be given to balance workloads of the food service staff and usage of kitchen equipment.

Offer Variety in Shapes and Sizes

Using a variety of shapes and sizes can help make a menu more attractive and interesting. Consider a meal with chicken nuggets, potato rounds, carrot coins, mini-muffins and pear chunks. Those foods have a similar shape. Presenting foods in several different shapes appeals to children. For example, a menu that offers good variety of shape and size might include: Hamburger on a whole grain bun, baked sweet potato fries, fresh broccoli bites, watermelon wedge, and milk.

Offer Variety in Flavor

Menus should include a variety of foods. Care should be taken to offer different forms of meat/meat alternate. Menu planners are encouraged to offer a variety of vegetables and fruits each week and daily if possible.

Offer Choices

When choices are offered within the menu, students are more likely to participate and eat what they select. When healthy foods are offered, students will select healthy foods. Offering a choice of fresh or canned fruit allows students the opportunity to choose a fruit that he/she would more likely eat. In elementary and secondary schools, offer vegetable and fruit choices utilizing a garden bar. Schools that offer choices generally have higher participation, greater student satisfaction and improved student consumption of the foods offered. With careful planning, most schools can successfully offer students choices with some or all the menus.

Make Menus Colorful

Color on the tray gives eye appeal. A simple colorful garnish can increase meal acceptance. Foods come in a rainbow of colors. Use red, yellow, green, brown, white, purple, orange and blue foods to provide contrast in color. Use at least two colorful foods in each menu. Vegetables and fruits are a natural way to add eye appeal. Add a brightly colored food item to a menu with little or no color.

Most foods provide pleasing color combinations, with the exception of some reds. The orange-reds of fresh tomatoes don't combine well with the purple-reds of beets or plums. The absence of color in a menu is often more of a problem. Baked chicken, boiled potatoes, cauliflower, sliced pears and white roll lacks color contrast and appeal.

Add Contrast

As menu entrées are planned and the rest of the menu is built, there is an opportunity to add texture, shape and color. To add texture use crisp, firm foods. Add shape by including a food that is long next to a food that is round. Add color by using bright fruits and vegetables. Vary temperature by offering fresh fruits or vegetables frequently. For example, offer a crisp dark green leafy salad or raw vegetable sticks with a soft whole grain breadstick, spaghetti with meat sauce and fat free milk.

Marketing Menus

Well-planned menus encourage and maintain high student participation. The printed menu can be used to market the program, let parents and students know that school meals are nutritional bargains and communicate the advantages of eating at school. Students and their parents can be informed through printed menus sent home with students, menus published in the local newspaper or school newsletter or on the school's Internet web site. The printed menu is often posted at home, in school classrooms and in the school office.

USDA requires the reimbursable meal to be posted at the beginning of the serving line. An attractive menu board or the Kansas Healthy Plate poster are good ways to let students know what is being offered and what choices are available. For additional information about marketing the school meal program, refer to Chapter 24, Parent and Student Involvement.

Menu Planning Evaluation

The menu planner must develop menus that meet the needs and desires of the customer as well as USDA guidelines. To obtain feedback about the menus, menu planners can:

- ◆ Analyze food waste.
- ◆ Track participation rates for meals.
- ◆ Establish a menu advisory group including students, parents and school staff.
- ◆ Hold taste testing for new menu items.
- ◆ Conduct food surveys.
- ◆ Visit informally with students about food likes and menu suggestions.
- ◆ Meet with food service staff to obtain their comments about menus.

Making menu changes to better meet the students' food preferences should be the goal. Be flexible. For more information on how to involve students in the menu planning process, refer to Chapter 24, Parent & Student Involvement. In addition, it is important to evaluate menus objectively. The Menu Evaluation Checklist (Form 16-A) can be used as a tool for better menu planning.

Best Practice Ideas to Meet the Nutrition Standards for School Meals

1. Offer a **fruit** daily at lunch. Fruits may be fresh, canned, frozen, or dried (unsweetened).
2. Offer a variety of **vegetables** to meet the weekly sub-group requirements. See Form 16-B for additional vegetables by sub-group.

Offer good sources of dark green vegetables at least once weekly.

- ◆ Broccoli
- ◆ Spinach
- ◆ Kale
- ◆ Romaine
- ◆ Greens (mustard, collard, turnip)
- ◆ Dark green leaf lettuce

Offer good sources of red/orange vegetables at least twice weekly:

- ◆ Tomatoes
- ◆ Carrots
- ◆ Pumpkin
- ◆ Acorn or Butternut Squash
- ◆ Sweet Potatoes

Offer good sources of starch vegetables at least once weekly:

- ◆ Potatoes, white
- ◆ Oven-baked fries
- ◆ Corn
- ◆ Peas

Food Service Facts - Chapter 16, Menu Planning & Nutrition Standards for School Meals

Offer good sources of beans or legumes at least once weekly:

- ◆ Beans (pinto, navy, chickpeas, kidney, black)
- ◆ Pork and beans
- ◆ Refried beans
- ◆ Baked beans

Offer other vegetables as necessary to fulfill weekly vegetable component requirements:

- ◆ Green beans
- ◆ Onions
- ◆ Cauliflower
- ◆ Beets
- ◆ Iceberg lettuce
- ◆ Cucumbers
- ◆ Celery

Offer additional servings of vegetables to meet weekly vegetable components as necessary.

3. Assure students are offered at least two **milk** choices (one choice must be unflavored) from the following:
 - ◆ Fat-free (unflavored or flavored)
 - ◆ 1% low-fat (unflavored or unflavored)
 - ◆ Fat-free or 1% low-fat (lactose-reduced or lactose-free)
4. Assure that **grains** are whole-grain rich (at least 50% whole grain). Products that are considered whole-grain rich will meet one or more of the following criteria.
 - ◆ Whole-grain stamp is on the product
 - ◆ Health claim is on the product
 - “Diets rich in whole grain foods and other plant foods and low in total fat, saturated fat, and cholesterol, may help reduce the risk of heart disease and certain cancers” **OR**
 - “Diets rich in whole grain foods and other plant foods, and low in saturated fat and cholesterol, may help reduce the risk of heart disease”
 - ◆ Child Nutrition (CN) label will designate whole-grain content
 - ◆ Ingredient list will show first ingredient is whole-grain product such as Whole Wheat or Whole Corn.
5. Offer a variety of meat/meat alternative sources to satisfy the daily and weekly requirements.
6. Water must be available during meal service to children at no charge in the place where lunch meals are served and when breakfast is served in the cafeteria.

Food Service Facts - Chapter 16, Menu Planning & Nutrition Standards for School Meals

7. Gradually reduce **sodium** in menus. To decrease sodium in menus:
 - ◆ Add less salt or no salt when other ingredients contain salt.
 - ◆ Monitor sodium on pre-prepared meats and purchase those that contain less
 - ◆ Limit processed meats such as hot dogs, luncheon meats and ham
 - ◆ Limit cheese on menus to once or twice per week
 - ◆ Limit salad dressings, catsup, pickle relish, and other high sodium condiments
 - ◆ Limit the portion size and the frequency that pickles are served
 - ◆ Compare sodium contents of pre-prepared food items and choose those that contain less
 - ◆ Prepare more foods from scratch so that salt added can be controlled

8. Limit **Saturated Fat** and eliminate **Trans Fat** in menus. Guidelines include:
 - ◆ Lower-fat and trans fat free versions of food items can be substituted for high-fat favorites such as chicken fried steak, sausage, hot dogs or luncheon meats, chips, cookies and margarine. Read labels to identify the lower saturated fat items and to eliminate items containing trans fat.
 - ◆ Seconds are only available for fruits and vegetables. Be sure to consider costs if offering seconds.
 - ◆ The type of foods served and the amounts served should be well-controlled. Menus should be served as planned and recipes should be standardized and followed. Menu items should be portioned accurately. Amounts of food served and left over should be recorded and used in future menu planning.
 - ◆ Encourage students to select fat-free milk.
 - ◆ Limit regular cheese as a condiment or recipe ingredient. Limit cheese to ½-1 oz. per person no more than two or three times per week.
 - ◆ Offer reduced fat or low fat salad dressings in moderation.
 - ◆ Offer jelly or honey on rolls in place of trans-fat free margarine.

9. Plan menus to meet **calorie ranges** for age/grade groups by using foods that have high nutrient content per calorie.

[Question & Answers on the Final Rule, "Nutrition Standards in the National School Lunch and School Breakfast Programs"](#)

[Updated School Meal Guidance - 2019](#)