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The National School Lunch Program: Local Implementation of Federal Reform

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THE NATIONAL SCHOOL LUNCH PROGRAM: LOCAL IMPLEMENTATION OF FEDERAL REFORM

By

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A Professional Project submitted to the Faculty of the Graduate School, Marquette University, in Partial Fulfillment of the Requirements for the Degree of Master’s in Public Service

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This research study examined the National School Lunch Program and local implementation of federal reform in public and private schools in Milwaukee County, Wisconsin. The survey participants were selected by the way of purposeful sampling; interviews were conducted over the telephone; and a 90-minute focus group was held. Major themes from the study consist of the need for well-balanced meals in schools, concern regarding childhood obesity, and barriers of local implementation of federal guidelines. Many advocates expressed their concern regarding the calorie restrictions, specifically to the 850 kcal maximum for physically active students. This study provides insight on how the most recent federal guidelines for school lunch programs have been implemented by Milwaukee area schools with the help of privatization and careful menu planning by employed dietitians.

*Keywords*: National School Lunch Program, federal reform, implementation, obesity
I would like to take this opportunity to offer my most sincere gratitude to my thesis director, Dr. Robert Pavlik, for his unwavering patience and guidance throughout the past year. It has been a wonderful educational endeavor, and I will be forever grateful for having the opportunity to work with Dr. Pavlik. I would also like to thank the entire faculty at the Graduate School of Professional Studies at Marquette University for all of their passion and wisdom; it has been a heartfelt pleasure to study underneath them. I would also like to thank Emily Hernandez for her uplifting spirit, kindness, and guidance throughout my time in the program. Formally, I would like to thank my supervisor at the Muscular Dystrophy Association, Christopher Zupfer, for allowing me the time I needed to pursue my Master’s degree while furthering my professional career. I attribute the completion of this project in my specified timeline to Mr. Zupfer.
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CHAPTER I

The National School Lunch Program: Local Implementation of Federal Reform

America has become a nation where adult and child obesity is increasing at exorbitant rates. “As of 2008, 64% of American adults were overweight and 36% of adults were obese” (Lueke, 2011, p. 205). This epidemic of obesity has raised public awareness and has alarmed public officials. Not only do these numbers speak to the current obesity epidemic, they are the precursors for the future. The Organization for Economic Co-Operation and Development (OECD) states that these numbers will increase to approximately 7-8% within the next 10 years (Lueke, 2011). Obesity is not just an adult issue; the nation’s children are directly affected. Childhood obesity has an array of negative health conditions such as “cardiovascular disease, metabolic syndrome, hyperlipidemia, insulin resistance, diabetes, asthma, sleep apnea, orthopedic complications, fatty liver disease, and much more” (p. 207). Current researchers are suggesting for the very first time in our nation’s history that young Americans have a high probability of passing away at younger ages than their parents (Lueke, 2011).

The epidemic of childhood obesity in America can no longer be ignored, “the density of nations depends on how they nourish themselves” (Lueke, 2011, p. 205). Many factors contribute to childhood obesity such as portion sizes, high-fat foods consumption, inactive lifestyles and genetic predispositions (Lueke, 2011). At the Healthy Hunger-Free Kids Act signing, First Lady Michelle Obama said,

Child hunger and child obesity are really just two sides of the same coin. Both rob our children of the energy, the strength, and the stamina they need to succeed in school and in life. And that, in turn, robs our country of so much of their promise. (White House, 2010, p. 3)
The success of the National School Lunch program is important, “Because children and adolescents spend a significant amount of time in school, schools have continuous and intensive contact with youth during the first two decades of their lives; that contact can be used to positively shape nutritional habits” (Lueke, 2011, p. 215). For this reason, schools are charged with the responsibility of providing nutrient dense meals to students on a weekly basis through the National School Lunch Program (NSLP).

The National School Lunch Program, coined as the most successful food assistance program in the United States, began as a result of children not getting enough food at home. The purpose of the NSLP was to eradicate hunger through school programs. Studies show that the cognitive ability of hungry children with a lack of good nutrition is limited. To date, the NSLP serves children in grades K-12 helping them nourish their bodies, which in turn aids them in succeeding academically. In recent times, the NSLP has transformed from a program to feed hungry children with nutritious food to a program that serves food with the nutritional content of fast food. According to Rosenkranz & Dzewaltowski (2010), “Children and adolescents under the age of 18 as a whole are faring poorly in meeting recommended nutritional goals. Many children are consuming excess calories and exceeding recommended intakes of total fat, saturated fat, added sugar and sodium” (p. 123).

Much attention has recently been given to reforming school lunches across the nation. Philipsen (2008) writes, “Early exposure to fruits and vegetables and other foods associated with healthy growth and development may lead to preference for and consumption of these foods” (p. 46). Because of the healthy consciousness timeline, the NSLP is responsible in part for securing a generation of health conscious citizens. First Lady Michelle Obama, who has played a pivotal
role in the Let’s Move campaign and the MyPlate USDA nutrition guide, stated at the National Restaurant Association 2011 annual meeting:

We can make a commitment to promote vegetables and fruits and whole grains on every part of every menu. We can make portion sizes smaller and emphasize quality over quantity. And, we can help create a culture — imagine this — where our kids ask for healthy options instead of resisting them. (Schulman, 2010, p.2)

The United States Department of Agriculture (USDA), the Center for Disease and Control (CDC), and the Institute of Medicine (IOM), as well as other organizations, have published guidelines and recommendations for reforming the school meal program. The U.S. Department of Agriculture and the U.S. Department of Health and Human Services (USHHS) established the Dietary Guidelines for Americans 2010, which are backed by scientific research and medicine. These guidelines directly affect the National School Lunch Program (NSLP).

On January 25, 2012, the USDA issued a press release announcing historical improvements to the NSLP and the well-being of 32 million kids nationwide (U.S. Department of Agriculture, 2012A). Agriculture Secretary Tom Vilsack believes that “the new meal requirements will raise standards for the first time in more than fifteen years and improve the health and nutrition of nearly 32 million kids that participate in school meal programs everyday” (U.S. Department of Agriculture, 2012A, p. 1). The USDA proposed recommendations include: healthier food and beverage choices in vending machines; increased funding for schools which equals approximately 6 cents per meal; monitoring non-federal sources ensuring they are committed to healthy school meals; instating training for school administrators to monitor compliance. Food Policy Coordinator, Ben Thomases, states that the recent NSLP reform, “came from the social justice angle […] with the idea being that there are
two interrelated food policy issues that are really important: hunger and more precisely food insecurity, and obesity” (Morgan, 2008, p. 53).

These recommended changes to the NSLP are to be implemented at the beginning of the 2012-2013 school year by schools across the United States. The most recent federal guidelines for NSLP require schools to offer students more fruits, vegetables, enriched grain products, and a decrease in caloric and sodium intake. American schools interested in nutritional reform of the National School Lunch Program face a complex regulatory system, which includes local, state, and federal laws. Some researchers in the field suggest that the recommendations are not feasible, because the price for healthier food generally cost more money than less nutritious food. Other leaders in the field suggest that administrators in the field who develop meal programs do not have sufficient training, experiences, and expertise to implement the recommendations by whole menu planning.

The purpose of the study is to determine whether or not and to what extent do local Milwaukee area elementary and secondary schools are implementing recent federal guidelines for school meals, specifically the National School Lunch Program (NSLP) and the School Breakfast Program (SBP). The research questions to support the purpose of this study include:

1. How well and to what extent are local K-12 schools implementing recent federal guidelines for school meal programs?
2. Why do schools implement or not implement the federal guidelines recommended for school meal programs?
3. What are the similarities or differences between the recommendations implemented in public versus private elementary schools in Southeast Wisconsin?
CHAPTER II

Literature Review

This section explores the history of the National School Lunch Program, defines, and explains the concept of competitive foods, and the USDA’s Final Rules for National School Lunch Programs on nutrition standards in the National School Lunch and School Breakfast Programs. Additionally, the *Dietary Guidelines for Americans, 2010* and school meal recommendations by the Institute of Medicine are reviewed.

**History of National School Lunch Program**

Food policy and childhood nutrition have always been protected by the United States Government. The first piece of legislation, as it relates to school meals in the United States, came to fruition in 1942 and was called the National School Lunch Act, 42 U.S.C. This law requires school meals to meet specific dietary recommendations. From this piece of legislation, five major programs were established: National School Lunch Program, School Lunch Breakfast Program, Special Milk Program, Summer Food Service Program, and the Child and Adult Care Food Program. These five major food programs were the beginning of food policy and childhood nutrition legislation. Together, they illustrate just how far community health initiatives have come, and more importantly, where they should further aspire to be (Roberts, 2002).

The concept of feeding children at school is not a new concept and has been around since the 1700s. Mandatory schooling in the United States brought children from all over the nation to schools. Teachers and administrators alike noticed that the state of hunger the children were in hindered their ability to learn. Robert Hunter (1904) wrote:

> It is utter folly, from the point of view of learning, to have compulsory school law which compels children, in that weak physical and mental state which results from poverty, to
drag themselves to school and to sit at their desks day in and day out for several years, learning little or nothing . . . learning is difficult, because hungry stomachs and languid bodies and thin blood are not able to feed the brain. (Roberts, 2002, p. 591)

Hunter’s outcry was heard by John Spargo, who was considered a socialist educator. Spargo began to research the state of hunger of children in public schools. His data showed that one out of four children had not eaten any breakfast, and they were not given money for lunches. The state of childhood hunger garnered the attention of the national media and U.S. citizens. The first school to pilot a school meal program was in New York City under the supervision of Dr. Maxwell, the New York School Superintendent. A short time after offering school meals to children, the results “showed not only improved physical status of children (increased weight of children) receiving food waste and cost (actual cost was four cents)” (Roberts, 2002, p. 591).

It was during the Great Depression when the United States Federal Government got active with school meal programs across the country. Unemployment rates were the highest they had ever been in the U.S., and the people did not have money to purchase food, leaving farmers with massive food surpluses. When the federal government stepped in, they used the surplus to feed the children, creating a stimulus program for hungry children and paying the farmers for the farm commodities. This initiative became known as the Work Projects Administration. “By 1941, the WPA was operating school lunches in every state, the District of Columbia and Puerto Rico” (Roberts, 2002, p. 592). In just five years, America was ready to pass the National School Lunch Act, and it came into effect in 1946. The National School Lunch Act had two main purposes: “to safeguard the health and well-being of the Nation’s school children and to encourage the domestic consumption of nutritious agricultural commodities and other food”
(Roberts, 2002, p. 593). This policy has not changed significantly over the last 50 years and still safeguards school meal policy today.

The National School Lunch Program (NSLP) provides food to children of all socioeconomic statuses and “is feeding many children food they would not otherwise have access to because of their family’s income” (Roberts, 2002, p. 590). The NSLP is considered by many researchers and policy makers as one of the greatest successes in domestic food policy (Roberts, 2002). In the last 30 years, a significant presence of vending machines has occurred. These machines offer students snacks with empty calories and no nutritional benefits. “There are also concerns over data that show our children are falling substantially short of getting needed vitamins and minerals while at the same time getting too much fat, sugar, and unhealthy additives” (p. 590). Serving food of high nutritional value is a large opportunity and responsibility of the National School Lunch Program.

The first *Dietary Guidelines for Americans* was published by the Federal Government in the early 1980s; however, these recommendations were not implemented until 1990. A 1992 study brought to light that while children were receiving the recommended dietary standards for vitamins and minerals, children were also consuming too much fat, saturated fat, and sodium. A study conducted during the 1998-1999 school year found “only one in five elementary schools and one in seven secondary schools met the SMI standards for calories from fat in lunches actually chosen by and served to children” (Roberts, 2002, p. 589). Research shows a strong correlation between good childhood nutrition and a child’s aptitude for success in the classroom, in extracurricular activities, and in their personal and social lives.

**Competitive Foods**
Competitive food is commonly understood as food students receive outside of the school lunchroom in the school halls, vending machines, local grocery stores, and other food venues. Competitive foods were first addressed in 1970 when Congress passed legislation that made it illegal for outside vendors to sell food in schools. After a short two-year period, vending machine companies had found a way back into schools. In 1972, the legislation of 1970 was abolished, and the vending machine companies and snack shops became part of the American school food culture once again. As public concern grew Congress returned to the Child Nutrition Act to prohibit foods with minimal nutritional value anywhere in the school from the beginning of the school day until after the last meal period (U.S. Department of Agriculture, 2001). However, these regulations were soon overturned by the decision of *National Soft Drink Association v. Block*. The National Soft Drink Association argued that the Secretary of Agriculture had “exceeded his rule making authority when he promulgated the time and place regulations barring the sale of competitive foods throughout the school and until after the end of the last service of the day” (U.S. Senate, 2004, p. 18). The USDA published a report on the negative impact of competitive foods and highlighted the following items:

With no regulated nutrition standards, competitive foods are relatively low in nutrient density and are relatively high in fat, added sugars, and calories. Competitive foods may stigmatize participation in school meal programs since only children with money can purchase competitive foods, children may perceive that school meals are primarily for poor children rather than nutrition programs for all children. Competitive foods may affect the viability of school meal programs. Competitive foods convey a mixed message. (U.S. Department of Agriculture, 2001, p. 4)
One study shows that “43% of elementary schools, 73.9% of middle schools, and 98.2% of senior high schools have either a vending machine, school store, canteen or snack bar” (Weschler, Brener, Kuester, & Miller, 2001, p. 313). About 71% of schools allow students to purchase from these alternative vendors with less healthy choices than from the school lunch program with healthier food options. “Children spend the majority of their day at school, often staying for after school activities; the foods and beverages available during and after school can contribute a number of calories to their daily consumption” (Stallings & Yaktine, 2007, p. 16).

Schools struggling to meet budget requirements have turned to companies, like Coca-Cola®, who offer incentives, like new art programs, new computers, or staff training, based upon the number of products sold. The National Cancer Institute spends about one million dollars annually, in various marketing campaigns, to promote healthy eating habits and the consumption of fruits and vegetables (Jacobson & Brownell, 2000). Exclusive contracts between schools and outside vendors create a situation in which students are making less healthy decisions and the vendor is the benefactor. With regard to the importance of the National School Lunch program one administrator wrote:

I am deeply troubled by a broad range of issues related to the length, exclusivity, and financial terms of the contracts, to the lack of adequate federal oversight of foods sold in competition with school meals, and to the widespread failure of schools to enforce even the weak rules that exists. They also viewed the contracts as threatening the economic viability of school food service operations, the integrity of the schools’ educational mission, and—not least—the children’s health. (Zorn, 1999, p. 31)
The USDA advocates that children should be offered healthy food options during breakfast, lunch and after school activities.

**Dietary Guidelines for Americans**

The *Dietary Guidelines for Americans 2010* is a document compiled from the recommendations of the Institute of Medicine’s 2010 Dietary Guidelines Advisory Committee and published every five years. The publication is “intended to be used in developing educational materials and aiding policy makers in designing and carrying out nutrition-related programs including Federal assist and education programs” (U.S. Department of Agriculture & U.S. Department of Health and Human Services, 2010, p. i). The National School Lunch Program bases its meal programs on the *Dietary Guidelines for Americans, 2010*. The ultimate goal of these guidelines is to promote healthy eating and physical activity choice, with the ultimate purpose of improving the health of all Americans, ages 2 and older (U.S. Department of Agriculture & U.S. Department of Health and Human Services, 2010). *Dietary Guidelines for Americans, 2010* is the seventh edition of the publication and is the most recent. The entire document has two major themes relating to healthy food: maintain calorie balance over time to achieve and sustain a healthy weight and focus on consumption of nutrient-dense foods and beverages. The committee recommends that a healthy diet should consist of less solid fats, added sugars, and refined grains, and more vegetables, fruits, whole grains, fat-free diary, and seafood. Four major recommendations by the Dietary Guidelines for Americas are: (a) balance calories to manage weight, (b) reduce daily sodium, calories, added sugars, and refined grains, (c) increase in healthier foods, and (d) begin to build healthier eating patterns.

A key component to maintaining weight is balancing caloric intake. The number of calories consumed must also be expended for a person to maintain an appropriate weight. It is
estimated that there should be at minimum a 500-calorie deficit for healthy weight loss. Recent research shows that the public environments where people work, attend school, and play have contributed to the recent obesity epidemic. “However, choices are often limited by what is available in a person’s environment, including stores, restaurants, schools and worksites” (U.S. Department of Agriculture & U.S. Department of Health and Human Services, 2010, p. 11). The National School Lunch Program is vital in ensuring that students are being exposed to healthy meal patterns.

Table 1

*Top 10 Sources of Calories*

<table>
<thead>
<tr>
<th>Overall Population</th>
<th>Adolescents 2-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>Calories</td>
</tr>
<tr>
<td>1 Grain based desserts</td>
<td>138 kcal</td>
</tr>
<tr>
<td>2 Yeast Breads</td>
<td>129 kcal</td>
</tr>
<tr>
<td>3 Chicken and chicken mixed dishes</td>
<td>121 kcal</td>
</tr>
<tr>
<td>4 Soda/energy/sports drinks</td>
<td>114 kcal</td>
</tr>
<tr>
<td>5 Pizza</td>
<td>98 kcal</td>
</tr>
<tr>
<td>6 Alcoholic beverages</td>
<td>82 kcal</td>
</tr>
<tr>
<td>7 Pasta and pasta dishes</td>
<td>81 kcal</td>
</tr>
<tr>
<td>8 Tortillas, burritos, tacos</td>
<td>80 kcal</td>
</tr>
<tr>
<td>9 Beef and beef mixed dishes</td>
<td>64 kcal</td>
</tr>
<tr>
<td>10 Dairy desserts</td>
<td>62 kcal</td>
</tr>
</tbody>
</table>
“Protein, fats, and carbohydrates make up the majority of calories in the American diet and almost all foods contain these micronutrients to some degree, carbohydrates provide four calories per gram and are the primary source for calories for most Americans” (U.S. Department of Agriculture & U.S. Department of Health and Human Services, 2010, p. 14) (see Table 1 for the Top 10 Sources of Calories). Sugars, starches and fibers are all types of carbohydrates, but most carbohydrates are consumed in the form of starches. The most commonly consumed starch in the American diet is refined grains. Like carbohydrates, proteins contain four calories per gram.

Protein is a very important nutrient in the American diet, because it helps to build and maintain muscle and tissues. Fat is the most caloric dense nutrient that provides nine calories per gram. The Institute of Medicine recommends that children from ages to 4-18 years of age maintain a diet that is made up of 45-65% of carbohydrates, 10-30% of protein and 25-35% of fats.

Additionally, the U.S. Department of Agriculture and the U.S. Department of Health and Human Services (2010) found that “sodium, solid fats (major sources of saturated and trans fatty acids), added sugars, and refined grains” (p. 16) contribute to chronic diseases, and these foods are consumed in excess by children and adolescences in America.

Sodium is a nutrient that provides many benefits to the body if not consumed in excess. Sodium intake is directly correlated to blood pressure levels. The Dietary Guidelines for Americans, 2010 recommends that Americans, ages 2 years and older, should not consume more than 3,400 mg of sodium per day. Most sodium (sodium chloride) is consumed in the form of processed foods, which is heavily served in the National School Lunch Program. The total fat intake recommended by the Institute of Medicine is divided by age groups, “children ages 1-3 years: 30-40% of calories; children and adolescents ages 4 to 18 years: 25-35%” (U.S.
Added sugars make up a significant portion of the American diet. Sugar is found primarily in fruits, in the form of fructose, and in milk products, also known as lactose. Much like sodium, most of the sugar consumed by Americans is from prepackaged and processed foods. Research shows, “Sugars contribute an average of 16 percent of the total calories in American diets” (p. 27). Refined grains means whole grains that have gone through a refining process “that results in the loss of vitamins, minerals, and dietary fiber” (p.29). Vitamins and other healthy minerals are present in whole grains but are often lost in the processing of the grains and are not added back into the whole grains. Overall, the Dietary Guidelines for Americans 2010 recommends that Americans reduce the intake of foods that are high in sodium, solid fats, added sugars, and refined grains.

 Nutrient dense goods are grossly under consumed by Americans. “Dietary intakes of several nutrients - potassium, dietary fiber, calcium, and vitamin D - are low enough to be a public health concern for both adults and children” (U.S. Department of Agriculture & U.S. Department of Health and Human Services, 2010, p. 33). A summary of key recommendations include increasing vegetable and fruit intakes, eat a variety of vegetables, increase intake of fat-free or low-fat milk, and use oils to replace solid fats when possible, reduce intake of solid fats, reduce intake of added sugars and refined grains and sodium, increase the intake of vegetables, fruit, and whole grains” (p. 45).

Institute of Medicine School Meal Recommendations

The Institute of Medicine (IOM) published a document called School Meals: Building Blocks for Healthy Children. These recommendations indicate how the National School Lunch Program and the School Breakfast Program could provide nutritionally balanced and low-cost
meals to students across the nation better. Based on the *Dietary Guidelines for Americans 2010*, the IOM made the following recommendations: “to increase the amount and variety of fruits, vegetables, and whole grains; set a minimum and maximum level of calories; and increase the focus on reducing the amounts of saturated fat and sodium provided” (Institute of Medicine, 2009, p. 1) (see Table 2 for recommendations).

Table 2

*Key Recommended Changes in School Lunch Requirements*

<table>
<thead>
<tr>
<th>Type of Specification</th>
<th>Current Requirements</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruits</td>
<td>Considered together as a fruit and vegetable group.</td>
<td>Required daily amount increased.</td>
</tr>
<tr>
<td>Vegetables</td>
<td>No specifications for the type of vegetable.</td>
<td>Two servings required daily, amount increased. Must include dark green, bright orange, legumes, starchy, and other vegetables each week.</td>
</tr>
<tr>
<td>Grains/Breads</td>
<td>No requirement for whole grains.</td>
<td>At least half must be whole grain rich.</td>
</tr>
<tr>
<td>Milk</td>
<td>Whole, reduced-fat, low-fat, fat free milks (plain or flavored).</td>
<td>Fat-free plain or flavored and plain low-fat milk only.</td>
</tr>
<tr>
<td>Calories</td>
<td>Must meet minimum level.</td>
<td>Must be within the minimum and maximum level.</td>
</tr>
<tr>
<td>Sodium</td>
<td>None (decreased level recommended).</td>
<td>Gradually but markedly decrease sodium to the specified level by 2020.</td>
</tr>
</tbody>
</table>

*Adopted from Report Brief: School Meals: Building Blocks for Healthy Children (Institute of Medicine, 2009, p. 2)*
The committee recommends that while menu planning administrators use a single meal approach, which means using a meal pattern “which specifies the types and amounts of food in the meal” (Institute of Medicine, 2009, p. 2) A meal pattern cannot ensure by itself that students will intake the appropriate amount of calories, saturated fat, and sodium.

Various guidelines, recommendations, and policies have been created over many years, and at times, have not been fully implemented in the National School Lunch Program. The IOM Committee on Nutrition for National School Lunch and Breakfast Programs writes:

We recognize that standards will be effective only to the extent that standards are implemented effectively and thus made recommendations related to technical support, developing foods that are reduced in sodium contact, and taking measure to help schools incorporate more products that are rich in whole grains. (Stalling et al., 2010, p. x)

The National School Lunch program provides food for school meal programs to 99% of public schools and 83% of private schools in the United States (Stallings & Yaktine, 2007). In 1997, the new Nutrition Standards and Meal Requirements were implemented to ensure that children were receiving the utmost nutritious school meals. The Institute of Medicine’s 2010 report is comprised of updated recommendations and is supported by the Dietary Guidelines for Americans, 2010 developed by the U.S. Department of Agriculture and the U.S. Department of Health and Human Resources.

The ultimate goal of the Institute of Medicine’s recommendations is to create an environment where educators along with families can work together to ensure a healthier future for their children and the community. Additionally, the IOM recognizes that healthy and nutrient dense foods in schools are only part of the problem, and competitive foods make public places, like schools, less healthy by providing only foods that are high in fat and contain empty calories.
The IOM report recommends larger federal reimbursements for schools to purchase more fruits, vegetables, and whole grains. In order for a school to receive assistance from the federal government for school meals, it must function as a nonprofit organization, provide meals free of cost to children who qualify, supply students with meals that meet and follow the recommended guidelines by the USDA, and meet the offer versus serve provisions of the National School Lunch and Child Nutrition Act Amendment P.L. 94-105, 1975 (Stallings et al., 2010).

The IOM publication aims to address how schools can achieve the best balance of nutrition, student acceptance, practicality, and cost. The Institute of Medicine scientific committee noted that, “planning daily amounts of food to meet specific weekly patterns poses challenges, especially for the meat and meat alternative group, the grain group, and the vegetable sub groups” (Stallings et. al., 2010, p.108). The MenuDevelopment spreadsheet provides for some flexibility in terms of meat and meat alternatives, grain, and vegetable subgroups.

The idea of introducing whole grain-rich foods into the National School Lunch Program was first recognized when the *Dietary Guidelines for Americans, 2005* was published. The scientific committee of the Institute of Medicine reiterates that whole grains contain “the entire grain kernel, the bran, germ, and the endosperm” (Stallings et al., 2010, p. 111), while refined grains are stripped of most of their beneficial nutrients in the processing of them. Moreover, the IOM report defines whole grains versus whole-grain rich foods as:

The term whole grains applies to (1) grain foods whose grain ingredients are whole grains only (100 percent whole grains, such as whole wheat bread and oatmeal) and (2) whole grain ingredients, such as rye flour. Whole grain-rich foods, on the other hand, may contain less than 100 percent whole grain. (Stallings et al., 2010, p. 111)
An important issue that many health professionals, dietitians, and school officials point out is that food that is low in sodium or is made of whole grain is often not very palatable to children. The committee has identified three reasons why children often opt for refined grains over only whole grains:

1. Student acceptably is very low for many foods that contain whole grains as the only grain ingredients.

2. The cost of some 100 percent whole grain foods may be too high to be covered by the program income.

3. The availability of whole grain food selections may be limited, especially for some small school districts. (Stallings et al., 2010, p. 112)

For these three reasons, the committee coined the term whole grain rich foods. The committee then recommended that students be provided with a mixture of whole grain foods along with refined grains.

**Final Rule: Nutrition Standards in National School Lunch and School Breakfast Programs**

The U.S. Department of Agriculture, Food and Nutrition Service published the Final Rule on January 26, 2012 for the National School Lunch and School Breakfast Programs. This legislation “requires most schools to increase the availability of fruits, vegetables, whole grains and fat free and low-fat fluid milk in school menus; reduce the levels of sodium, saturated fat and trans-fat in meals; and meet the nutritional needs of school children within their calorie requirements” (U.S. Department of Agriculture, Food and Nutrition Service, 2012, p. 4088). The first law states that compliance with these standards for the NSLP program must begin on July 1, 2012. Each school administration is held accountable for these requirements set forth at the state and local level. The Federal Register does state that “the rule phases in many of the changes to
help ensure that all stakeholders—the children, the schools and their supply chains—have time to adapt.” (U.S. Department of Agriculture, Food and Nutrition Service, 2012, p. 4088). Below are the final jurisdictions of the USDA.

Final Rule A: Schools are to follow the proposed age/grade groups (K-5, 6-8, and 9-12) beginning the academic school year 2012-2013. It is the responsibility of the school administration to ensure that students are not consuming more sodium, saturated fat, and calories than recommended by the Dietary Guidelines for Americans, 2010.

Final Rule B: When menu planning, fruits and vegetables should be considered separate entities; therefore, fruit should be included in all school lunch meals. The USDA (2012) advocates that “fruits are to be prepared without added solid fats, sugars, refined starches, and sodium. Fruits provide essential nutrients and are under consumed by school children in the United States” (U.S. Department of Agriculture, Food and Nutrition Services, 2012, p. 4091). The new requirement states that children must be served one full cup of fruit, but will be allowed to select one-half cup of fruit to qualify as a reimbursable meal under the Offer versus Serve (OVS) program. Offer versus Serve is a concept that is used to determine what qualifies as a federally reimbursable meal. OVS was first put into effect in 1975 in conjunction with the National School Lunch Program. The OVS program has two main objectives: reduce food waste and promote students to choose their own foods. To meet the fruit and vegetable reimbursement requirements, the food can be canned, in fruit juice or water, fresh, in light syrup, or frozen without added sugar or sodium.

Final Rule C: Vegetables are to be offered at every lunch. In one week, a variety of vegetables should include most elements in the subgroups of dark green, orange, legumes, and others, as recommended in the Dietary Guidelines for Americans, 2010. Starchy vegetables are
to be limited to no more than one cup a week, and the school can substitute fruit for the School Breakfast Program. This rule is to be in full effect for the duration of the 2012-2013 academic school year and beyond.

Final Rule D: During the academic years of 2012-2013 and 2013-2014, it is required that whole grain-rich products must make up half of all grain products offered to students, the minimum USDA requirement. Beyond this 2-year implementation, it will be required that schools only offer whole grain-rich foods. To qualify for a reimbursement, the school menu must consist of 51% of whole grain and the balance of the product should be considered enriched instead of refined.

Final Rule E: One ounce of meat or meat alternative must be offered each day by the school to students in grades K-8. Students in grades 9-12 should be offered 2 oz. of meat or meat alternative each day. Meat alternatives, as determined by the USDA, include seafood, poultry, eggs, nuts, seeds, and soy products. Cheese and yogurt also meet the requirements of a meat alternative.

Final Rule F: Flavored milk may only be offered in the form of fat-free milk, while fat-free and low-fat choices of non-flavored milk may be offered to students. Flavored low-fat milk may not be offered as part of the school’s menu.

Final Rule G: A minimum and maximum calorie intake amount has been determined for each age group. The USDA hopes that by setting a limit to calories for one school meal, menu planners will have to be diligent in planning meals, and will service only nutrient dense foods students. The minimum and maximum requirements are based on a weekly intake. This time span allows for variations in caloric content of the meals. Some meals will exceed the maximum
and on other days, some will not meet the minimum requirement. Over the span of week, the caloric intake should be balanced.

Final Rule H: The intake of saturated fat is restricted, which upholds the current dietary requirements. Saturated fat should not exceed 10% of the weekly calorie intake. Some health care professionals, dietitians, and scientists recommended to the USDA that this rule should be stricter. Their recommendations were that saturated fat should not exceed 7% of the weekly calorie intake.

Final Rule I: A progression of fewer grams of sodium offered to children on a weekly basis over time is required. This final rule is to be implemented over a five-year span for the NSLP and the SBP. By the 2014-2015 academic school year, schools will be required to have reduced the sodium content of their meals by 5-10%. Overall, “the new meal requirements will raise standards for the first time in more than fifteen years and improve the health and nutrition of nearly 32 million kids that participate in school meal programs everyday” (U.S. Department of Agriculture, 2012A).

CHAPTER III

Methodology

The purpose of the research study is to determine whether or not and to what extent do local Milwaukee area schools implement recent federal guidelines for school meals, specifically the National School Lunch Program (NSLP). In recent years, the preparation of school meals has moved from on-site schools to off-site private companies. The guidelines set forth by the American Dietary Guidelines, 2010 have been used in the most recent USDA approved federal regulations of the NSLP. In this section, a description of the context for the research project and demographic information on the subjects are provided. The section also contains an explanation
of the processes for collecting data, analyzing the data, and implementing ethical precautions during the span of the research project.

Context

The research study took place throughout Milwaukee County located in Southeast Wisconsin. In 2011, Milwaukee County had an estimated population of 952,532, approximately 20% of Wisconsin’s total population. Milwaukee County also represents a diverse population. According to the United States Census Bureau, Black persons, Asian persons, and Hispanic or Latino persons equal 44.2% of the population, and approximately 62% of the total demographic makeup is comprised of White persons. Approximately 16% of the population speaks a non-English language at home.

Wang (2001) conducted a study entitled Cross-National Comparison of Childhood Obesity: the Epidemic and the Relationship between Obesity and Socioeconomic Status, which examined how obesity is directly correlated with socioeconomic factors. The study found that “the relationship between obesity and SES [socioeconomic status] varies across countries. Higher SES subjects were more likely obese in China and Russia, but in the United States, low SES groups were at a higher risk” (p. 1129). The City of Milwaukee was reported as the nation’s 4th poorest city by the United States Census Bureau. Rates of unemployment and poverty have increased, but health insurance coverage has decreased in the City of Milwaukee (Wisconsin Council on Children & Families, 2010). The organization indicates that the number of children in poverty is growing statewide:

The child poverty rate in Milwaukee County increased from 23.5 percent in 2008 to 29.9 percent in 2009. Milwaukee County’s child poverty rate is significantly higher than the statewide level, which rose from 13.4 percent in 2008 to 16.7 percent in 2009. More than
13,000 additional children slipped into poverty in Milwaukee County between 2008 and 2009. (Wisconsin Council of Family & Children, 2010, p.1)

Poverty rates in Southeast Wisconsin have increased at rates much higher than the national level, creating a situation for many families in the area where food insecurity is a harsh reality. Judi Bartfeld, a food security research and policy specialist at the UW-Extension, affirms, “Federally funded food and nutrition programs, such as SNAP [Supplemental Nutrition Assistance Program] and school meals, play a tremendously important role in helping food insecure families, and in keeping food insecurity rates from being even higher than they are now” (Martinez, 2011, p. 1). Given the economic climate in Milwaukee County and Wisconsin, social programs and the National School Lunch Program play a pivotal role in the public’s health more than ever before.

**Subjects**

The sample gathered in the study was a purposive convenience sample. Subjects were recruited from a Milwaukee County School directory. The subjects of the study were school managers or school administrators, both female and male, in Southeast Wisconsin. Six public and private school administrators completed the survey. All participants have experience in school nutrition and menu planning as well as knowledge of the National School Lunch Program. The focus group had four participants: two food administrators, one principal of a private school and on dietitian from a local hospital. Participant I worked as a rehabilitation specialist at a local hospital. Participant II was the principal of a private elementary school. Participants III and IV were both menu planners for public schools in southeast Wisconsin. Participant III was private contracted by a public district while participant IV was the menu planner employed by a public school district in southeast Wisconsin.
Data Collection and Treatment

The study implemented the triangulation approach for gathering data: review of related research, survey and interview, and a focus group. Ten subjects participated in the survey and interview components of the study. Each potential survey participant was contacted by telephone and asked if they would like to participate in the research project. If the participant agreed, the researcher sent the participant a fact sheet (see Appendix A) and the survey (see Appendix B) via email. When completed, the participant returned the survey to the researcher via email.

When the survey was received by the researcher, follow-up phone interviews took place at the convenience of the participant. Four phone interviews were competed. The questions asked in the phone interview include:

- Which of the federal guidelines are easy to implement? Why?
- Which of the federal guidelines are more challenging to implement? Why?
- If you were to propose another guideline, what would it be?
- What information do you need to implement the newly proposed nutritional guidelines better?
- How does your school monitor the implementation of the federal guidelines?
- In general, do you believe the new federal regulations such as the Health, Hunger-Free Kids Act of 2010 will improve the health of children? Why or why not?

To complete the process, a focus group was established, which included eight participants. The focus group teleconference lasted approximately 60 minutes. The group was comprised of nutritional experts and food supervisors of K-12 schools, both public and private. All participants who completed the survey and phone interviews were invited to participate in the
focus group. The survey and focus groups were designed to answer the researcher’s three primary research questions:

1. How well and to what extent are local K-12 schools implementing recent federal guidelines for school meal programs?
2. Why do schools implement or do not implement the federal guidelines recommended for school meal programs?
3. What are the similarities or differences between the recommendations implemented in public versus private local K-12 schools in Southeast Wisconsin?

All of the data collected from the survey, interviews, and focus group were tabulated and categorized into themes that emerged and clustered into the 11 federal guidelines discussed in the survey.

CHAPTER IV

Findings and Analysis

The National School Lunch Program is coined as the most successful nutritional program in the United States. To date, the NSLP has been recorded as costing the federal government $11.1 billion in 2011, “by comparison, the lunch program's total cost in 1947 was $70 million; in 1950, $119.7 million; in 1960, $225.8 million; in 1970, $565.5 million; in 1980, $3.2 billion; in 1990, $3.7 billion; and in 2000, 6.1 billion” (U.S. Department of Agriculture, 2012B, p. 3).

In this section, the data obtained through the administration of the survey, phone interviews, and a focus group is analyzed and discussed. Part A of the survey requests demographic data for the school food program (see Appendix B for the survey form). The data from Part A is divided into two sets: Public Schools and Private Schools. The topics to be compared between public and private schools include (a) years of experience in menu planning,
(b) participation levels, (c) cost of meals, and (d) availability of vending machines. Part B of the survey form covers the individual guidelines for the NSLP. Each guideline is reviewed to determine if the guideline is being implemented, if the school received training on the implementation of the guidelines, and if the school is monitoring for the guideline.

Two major themes that emerged in the research study are (a) Why are some of the federal guidelines difficult to implement? (b) More private schools are outsourcing meal planning to local colleges, private companies, and nonprofit organizations than public schools.

Results for Public and Private School Demographics

For a student to qualify for the free or reduced meals the student’s family must have an income of 130 percent or more below the national poverty line (National School Lunch Program, 2012). The National School Lunch Program also requires that schools offer students who are eligible for reduced price meals no more than $.40 for the lunch offered through the federal program. Furthermore, for students whose families are above the poverty level are required to pay full price for their meals, but these meals are also subsidized by the federal government and USDA.

Below are the findings representing public schools. Administrators of menu planning from five districts in Southeast Wisconsin respond for the public schools. The average length of meal planning experience for the participants is 10 years. None of the participants are contracted out to a third party provider, instead the participants were all employed by the district which they served. The enrollment in the Free Lunch Program in the five school districts ranged from 11% of the student body population to 86%. The average cost for a student to purchase a meal at a public school in Southeast Wisconsin is approximately $2.17. The average cost for a student to purchase a meal at a public school in Southeast Wisconsin was approximately $2.41, which is
about $.25 more than what the public students pays for a school lunch offered by the National School Lunch Program.

Only one school district offers soda in vending machines, and three of the five respondents indicated that there are vending machines with chips and candy available in their schools. Outside of the National School Lunch Program, the survey indicates that students had access to vending machines with snacks such as candy bars and chips, but none had access to healthier options like fruits and vegetables. (See Table 3 for public school results.)

Table 3

Public School Food Programs

<table>
<thead>
<tr>
<th>Participant</th>
<th>Enrollment</th>
<th>Daily meal costs per student: Breakfast</th>
<th>Daily Meal costs per student: Lunch</th>
<th>Enrollment Free Lunch Program</th>
<th>Title</th>
<th>Number of Years you have been planning school meals</th>
<th>Does your school have vending machines with soda?</th>
<th>Have vending machines with snacks such as candy bars and chips?</th>
<th>Offer snack bars outside of lunch with fruit and/or vegetables?</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>4712</td>
<td>$1.50</td>
<td>$2.10</td>
<td>503</td>
<td>Supervisor</td>
<td>18</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>P2</td>
<td>1628</td>
<td>$0.00</td>
<td>2.05</td>
<td>630</td>
<td>Food Supervisor</td>
<td>15</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>P3</td>
<td>2600</td>
<td>$1.50</td>
<td>$2.50</td>
<td>Unknown</td>
<td>Food Service Coordinator</td>
<td>1</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>P4</td>
<td>500</td>
<td>$1.30</td>
<td>$2.40</td>
<td>427</td>
<td>Food Service Director</td>
<td>2</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>P5</td>
<td>3306</td>
<td>$1.00</td>
<td>$1.80</td>
<td>1527</td>
<td>Food Service Director</td>
<td>14</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*P indicates participant

Private school findings are summarized below. Administrators of menu planning from five private schools in the City of Milwaukee responded to the survey. The average length of menu planning experience for the private school participants is approximately 13.25 years, which is 3.25 more years of experience than their public school counterparts have. The survey showed that four out of five of the private schools used a third party provider for their menu planning efforts. The third party providers include the Milwaukee Center for Independence and Alverno College. For private schools, enrollment in the Free Lunch Program ranges from 55% to 98%,
which is a much higher average than the enrollment in the Free Lunch Program of public school students. Three of the private school participants responded that their student enrollment in the Free Lunch Program is higher than 95% of the total school population. The private schools who participated in the survey were from an urban population, while some of the public school participants were from suburban affluent districts. Only one of the participants indicated that their school had vending machines, which dispensed both sodas and snacks such as candy and chips. None of the private schools had vending machines, which dispensed healthy snacks. (See Table 4 for private school results.)

Table 4

**Private School Food Programs**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Enrollment</th>
<th>Daily Meal costs per student: Breakfast</th>
<th>Daily Meal costs per student: Lunch</th>
<th>Enrollment Free Lunch Program</th>
<th>Title</th>
<th>Number of Years you have been planning school meals</th>
<th>Does your school have vending machines with soda?</th>
<th>Have vending machines with snacks such as candy bars and chips?</th>
<th>Offer snack bars outside of lunch with fruit and/or vegetables?</th>
</tr>
</thead>
<tbody>
<tr>
<td>P6</td>
<td>533</td>
<td>$0.00</td>
<td>$0.00</td>
<td>500</td>
<td>Director of operations</td>
<td>Unknown</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>P7</td>
<td>247</td>
<td>N/A</td>
<td>$3.00</td>
<td>135</td>
<td>Director</td>
<td>15</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>P8</td>
<td>1600</td>
<td>$1.40</td>
<td>$2.60</td>
<td>N/A</td>
<td>Director</td>
<td>10</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>P9</td>
<td>317</td>
<td>$2.15</td>
<td>$4.05</td>
<td>311</td>
<td>CFO</td>
<td>13</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>P10</td>
<td>1078</td>
<td>N/A</td>
<td>$2.40</td>
<td>960</td>
<td>Director</td>
<td>15</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*P indicates participant

**Results for Individual Guidelines**

The first item of the survey, completed by 10 school lunch administrators, focused on the appropriate age and grade groups to plan meals as recommended by the National School Lunch Program (see Table 5 for results). This data relates to the effectiveness of implementation of the federal guidelines for school meal programs in local K-12 schools.
**Table 5**  

*Use of the Age/Grade Groups K-5, 6-8 and 9-12 to Plan Menus in the NSLP*

<table>
<thead>
<tr>
<th>Participant</th>
<th>How often does your school implement this guideline?</th>
<th>Has your school had training to implement this guideline?</th>
<th>How often does your school monitor this guideline?</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P2</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P3</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P4</td>
<td>Always</td>
<td>Yes</td>
<td>Sometimes</td>
</tr>
<tr>
<td>P5</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P6</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P7</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P8</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P9</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P10</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
</tbody>
</table>

*P indicates participant*

**Data analysis.** All of the participants indicated that they always use the age/grade groups K-5, 6-8 and 9-12 when they do their menu planning. There was also consensus from all the participants that their school district and/or employer had provided them with training to implement the guideline. Only one administrator from the 10 indicated that their school only sometimes monitors this guideline. All of the responses were expected by the researcher as the age/grade groups are often in separate buildings during school, and nutritional values for these children are widely understood by professionals in the field of school nutrition and childhood development.

**Focus Group Commentary.** When the focus group convened, they agreed with the outcome of the data for the guideline. One focus group participant indicated that there are challenges in monitoring for all of the guidelines as the cashiers are often required to examine
students’ trays and are sometimes less familiar with the age group requirements. One participant explained that the only monitoring that happens is self-monitoring.

Guideline 1 was not new to many school food administrators; therefore, there was not a lot of variation from the responses on the survey. Focus group participants also agreed that this guideline was previously the standard for most food service administrators.

**Vegetable and fruit portions as separate entities.** The second item of the survey completed by five public and five private school lunch administrators focused on supplying students with fruits and vegetables as separate entities (see Table 6 for results).

Table 6

<table>
<thead>
<tr>
<th>Participant</th>
<th>How often does your school implement this guideline?</th>
<th>Has your school had training to implement this guideline?</th>
<th>How often does your school monitor this guideline?</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P2</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P3</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P4</td>
<td>Always</td>
<td>Yes</td>
<td>Sometimes</td>
</tr>
<tr>
<td>P5</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P6</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P7</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P8</td>
<td>Always</td>
<td>No</td>
<td>Never</td>
</tr>
<tr>
<td>P9</td>
<td>Never</td>
<td>Yes</td>
<td>Never</td>
</tr>
<tr>
<td>P10</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
</tbody>
</table>

*P indicates participant

**Data Analysis.** Of the 10 participants, nine agreed that they always offer fruit and vegetable as separate portions during lunch. Similarly, nine of the survey participants agreed that their school or business has provided them with full training on implementing the guidelines. Only seven of the participants agreed that their school or organization always monitors the
successful implementation of the guidelines, one indicated there is sometimes monitoring, and two responded that there is never monitoring of the guidelines.

**Focus Group Commentary.** One focus group member expressed concern about how someone can only sometimes monitor guidelines, specifically the second guideline, because fruit is to be offered daily. They further explained that never is bad and not acceptable. Previously, school food administrators could offer fruit or vegetables, and because students generally prefer fruit, there was less consumption of vegetables. Now, food administrators are trying to align the meal pattern to what students should be eating rather than simply what students like. Another focus group participant noted that serving more vegetables to students has caused various digestive problems to students who were not used to eating vegetables.

**Summary.** Before the new guideline, fruits and vegetable categories were interchangeable. Some private companies, who serve schools, had made the change of having separate vegetable and fruit portions many years earlier. Like some of the other guidelines, monitoring and planning becomes challenging. The food administrator might plan for separate portions but that might not align with the student’s choice in the lunchroom. It is important for the cashier to understand the guidelines fully in order to help students take the appropriate food portions.

**Fruit supply during lunch.** The third item of the survey completed by five public and five private school lunch administrators was designed to determine if fruit was being offered to students during lunch (see Table 7 for results).

Table 7

*Supply of Fruit to Students During Lunch*
Participant | How often does your school implement this guideline? | Has your school had training to implement this guideline? | How often does your school monitor this guideline?
---|---|---|---
P1 | Always | Yes | Always
P2 | Always | Yes | Always
P3 | Always | Yes | Always
P4 | Always | Yes | Sometimes
P5 | Always | Yes | Always
P6 | Always | Yes | Always
P7 | Always | Yes | Always
P8 | Always | Yes | Always
P9 | Always | Yes | Always
P10 | Always | Yes | Always

*P indicates participant

**Data Analysis.** Tables 6 and 7 are similar in that they address the supplying of fruit to students as an option during lunch. Previously, schools could offer fruit or vegetables during lunch. All of the respondents agreed that their schools offer fruit to students during all lunches offered through the National School Lunch Program, and all of the participants agreed that they have had training to successful implement the guideline as well. Only one participant indicated that they only sometimes monitor the implementation of the guideline.

**Focus Group Commentary.** One focus group participant noticed that students take more fresh fruit than canned fruit, stating that the fresh fruit goes first before the canned fruit. Another participant noticed that the older students throw away more fruit and vegetables than younger students do. One participant suggested that students pick the healthier options, because they might feel embarrassed for desiring less healthy options so they take a little bit of everything; and therefore, create more waste.
Summary. Participants indicated that offering fruits along with vegetables during lunch was not problematic to the menu planning efforts. They also agreed that many of them were already offering fruit during all of their meals. Students have traditionally favored fruits over vegetables, thus food administrators have not had to face resistance to this guideline.

Variety of vegetables. The fourth item of the survey, completed by 10 school lunch administrators, was designed to determine if other vegetable subgroups such as dark green, red/orange, beans and peas, and other starchy vegetables were being offered to students (see Table 8 for results). This guideline was developed in order to provide a variety of vegetables to children at a young age so when they become adults, they will have developed their pallets for a variety of vegetables.

Table 8

Offer Subgroups of Vegetables

<table>
<thead>
<tr>
<th>Participant</th>
<th>How often does your school implement this guideline?</th>
<th>Has your school had training to implement this guideline?</th>
<th>How often does your school monitor this guideline?</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P2</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P3</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P4</td>
<td>Always</td>
<td>Yes</td>
<td>Sometimes</td>
</tr>
<tr>
<td>P5</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P6</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P7</td>
<td>Never</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P8</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
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<tr>
<td>P9</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P10</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
</tbody>
</table>

*P indicates participant

Data Analysis. Of the 10 survey participants, nine agreed that they allow vegetable subgroups, such as dark green, red/orange, beans, peas and other starchy vegetables, weekly to students. Only one participant indicated that they never offer vegetable subgroups. All 10 of the
survey participants agreed that their school and/or organization have offered them the appropriate training to implement the guideline. One participant indicated that they only sometimes monitor the guideline. Only one participant indicated that they do not comply with the federal guideline.

**Focus Group Commentary.** The focus group discussed the idea of providing students with many options so that students can try a variety of vegetables. One survey participant compared it to what they did with chips. They previously offered regular high fat chips, and then they moved to baked chips with little to no resistance. They are trying to do the same by offering a variety of vegetables. Younger students may have never tried spinach or green beans; therefore, it is important to expose them to such vegetables. One participant stated that many students are not excited about bok choy (Chinese cabbage).

This guideline has made some of the participants feel restricted, because their menus have become somewhat repetitious by offering more romaine lettuce, broccoli and carrots. They do not feel encouraged to add more vegetable subgroups, and they don’t want to offer something that students won’t eat. Another participant added that they have had offered taste trials for students in which students could taste various menu options and give their opinions. This way the menu planner had an idea of what students preferred avoiding more waste.

**Summary.** Menu planners are generally in compliance with the above guideline; however, they have stated frustration with trying to serve some legumes and other less common vegetables to students. It was indicated that even though the guideline encourages more variety, food administrators find themselves only using a select few vegetable groups. Furthermore, food administrators are concerned that by implementing this guideline, they will experience an increase in cost.
Frozen fruit without added sugar. The fifth item of the survey completed by 10 school lunch administrators was designed to determine if local schools were serving students frozen fruit without added sugar (see Table 9 for results). The Dietary Guidelines for Americans together with the Institute of Medicine 2007 report indicate there is a concern with the amount of sugar intake young Americans receive in schools due to the potential for children to become diabetic in their youth or as they age.

Table 9

Frozen Fruit without Sugar

<table>
<thead>
<tr>
<th>Participant</th>
<th>How often does your school implement this guideline?</th>
<th>Has your school had training to implement this guideline?</th>
<th>How often does your school monitor this guideline?</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
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<tr>
<td>P2</td>
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<td>P5</td>
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<td>P6</td>
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<td>Sometimes</td>
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<tr>
<td>P8</td>
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<tr>
<td>P9</td>
<td>Sometimes</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P10</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
</tbody>
</table>

*P indicates participant

Data Analysis. Of the 10 participants surveyed, 50% agreed that they always offer frozen fruit without added sugar to students, 40% indicated that they only sometimes offer frozen fruit without added sugar to students, and 10% indicated that they never offer frozen fruit without added sugar to students. One participant indicated that they did not receive training from their school or organization to implement this guideline successfully. Of the 10 survey participants, 80% indicated that they always monitor the successful implementation of the guideline, while 10% indicated that they sometimes monitor the guideline, and 10% indicated that they never
monitor the implementation of the guideline. The respondents indicate that noncompliance of this guideline is because frozen fruit without added sugar is considered non-palatable by young students.

**Focus Group Commentary.** One participant observed that they were surprised by the variety of responses to the above guideline. There was concern that some participants had answered no and never. Another participant discussed the timeline for the implementation of this guideline. If a school has frozen fruit with sugar from previous years, they are able to serve it to students. The group also discussed that the reason for the guideline is the concern with the increase in childhood obesity and diabetes.

**Summary.** The above guideline is very appropriate with the rise of childhood obesity and cases of type II diabetes. Research shows that “fruits that are prepared without added solid fats, sugars, refined starches, and sodium are nutrient rich foods that supply important nutrients that are under consumed by school children in the United States” (U.S. Department of Agriculture, Food and Nutrition Service, 2012, 4091); therefore, the guideline was implemented in order to supply children with nutrient dense fruit. Schools that have frozen fruit with sugar in storage can continue to use it, because this guideline will be implemented in stages. This guideline had the most variety in responses, and it can be assumed that food administrators are at different stages of the guideline implementation.

**Whole grain rich products.** The sixth item of the survey completed by 10 school lunch administrators was designed to determine if local schools were serving only whole grain rich products to students throughout the week (see Table 10 for results).

Table 10

*Only Serve Whole Grain Rich Products*
<table>
<thead>
<tr>
<th>Participant</th>
<th>How often does your school implement this guideline?</th>
<th>Has your school had training to implement this guideline?</th>
<th>How often does your school monitor this guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Always</td>
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<td>Always</td>
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<tr>
<td>P2</td>
<td>Always</td>
<td>Yes</td>
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<tr>
<td>P3</td>
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<tr>
<td>P4</td>
<td>Always</td>
<td>Yes</td>
<td>Sometimes</td>
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<td>P5</td>
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<td>P9</td>
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<tr>
<td>P10</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
</tbody>
</table>

*P indicates participant

**Data Analysis.** All of the participants agreed that they only serve whole grain rich products to students in the National School Lunch Program. In addition, all of the participants agreed that their school or organization provided training on how to implement the guideline successfully. Ninety percent of the participants agreed that they always monitor the guideline.

**Focus Group Commentary.** All of the focus group participants agreed that this guideline is very appropriate for students and adults alike. One participant indicated when this person began his/her position 2 years ago, the first thing he/she personally changed was switching over to 100% whole grains. Whole grain products keep students full and have less calories. All of the focus group participants agreed that if there is a wheat allergy then they have the ability to accommodate the child with the allergy. One participant indicated that hospital dietitians often use school menus to help their clients. She indicated that as the NSLP evolves the schools should be too concerned with gluten allergies as the general population can consume wheat. The same participant hopes that the NSLP and food administrators alike will continue to promote whole grains.
Summary. Focus group participants and survey participants alike agreed that the above guideline is appropriate. All of the survey participants agreed that serving whole grain rich foods is important and that a gluten free agenda should not be advocated. For students who have the food allergy, there are procedures in place to accommodate them appropriately and safely.

Refined and enriched grain products.

The seventh item of the survey completed by 10 school lunch administrators was designed to determine if only refined and enriched grain products were being offered to students during lunch (see Table 11 for results). School lunch administrators have two years to become in full compliance with the below guideline. After the two-year timeline, it will be mandatory that schools only offer whole grain-rich foods. To qualify for a reimbursement, the school meals must consist of 51% of whole grain, and the rest of the product should be considered enriched instead of refined.

Table 11

Serve Only Refined and Enriched Grain Products

<table>
<thead>
<tr>
<th>Participant</th>
<th>How often does your school implement this guideline?</th>
<th>Has your school had training to implement this guideline?</th>
<th>How often does your school monitor this guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
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<tr>
<td>P10</td>
<td>Never</td>
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</tbody>
</table>

*P indicates participant
\textbf{Data Analysis.} Tables 10 and 11 are similar, because they address serving the students whole grain products, but the 9\textsuperscript{th} item on the survey showed to be more difficult to implement. Of the 10 participants surveyed, 50\% indicated that they were never in compliance, 10\% of the respondents are sometimes in compliance with the guideline; and 40\% of the respondents are always in compliance with the guideline.

\textbf{Focus Group Commentary.} The focus group noticed that there was a discrepancy between Tables 8 and 9. Survey participants indicated that in Table 8 they were always in compliance while in Table 9 fifty percent stated they were never in compliance. The group agreed, much like other guidelines, there is a timeline in which schools are required to implement the guideline. The focus group agreed that might be one reason for the apparent discrepancy.

\textbf{Summary.} All of the focus group participants agreed with the health benefits of the above guideline. There was concern about the cost associated with whole grain and enriched grains, but the schools have raised the price per meal to account for the additional cost. Contrary to lack of compliance in serving only refined and enriched grain products, all of the participants agreed that they have received training on how to implement the guideline, and 90\% of the respondents indicated that they always monitor the guideline. The Dietary \textit{Guidelines for Americans 2010} recommends that all Americans reduce the amount of refined grains consumed, and the above guideline was established to help students to begin a diet of less refined grain products.

\textbf{Meat or meat alternative as a protein.} The eighth item of the survey completed by 10 school lunch administrators was designed to determine if meat or a meat alternative was being offered to students during lunch daily (see Table 12 for results).
Table 12

*Offer Meat or a Meat Alternative Daily*

<table>
<thead>
<tr>
<th>Participant</th>
<th>How often does your school implement this guideline?</th>
<th>Has your school had training to implement this guideline?</th>
<th>How often does your school monitor this guideline?</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
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<td>P2</td>
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<td>P4</td>
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<tr>
<td>P5</td>
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<tr>
<td>P6</td>
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<td>Yes</td>
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<td>P7</td>
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<td>P9</td>
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</tr>
<tr>
<td>P10</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
</tbody>
</table>

*P indicates participant

**Data Analysis.** All of the participants indicated that they offer meat or a meat alternative daily to students enrolled in the National School Lunch Program. Likewise, all 10 of the participants indicated that they have received the proper training to implement the guideline. Only one participant indicated that they only sometimes monitor the guideline.

**Focus Group Commentary.** The focus group compared this guideline to the maximum and minimum calories levels guideline, which introduces a caloric maximum. The above guideline does not allow food administrators to serve more than 1 oz. of protein in a school lunch. The focus group participants agreed that this was not sufficient for student athletes and other students who lead active lifestyles. The focus group indicated that meat alternatives include but are not limited to yogurt, legumes, and beans.

**Summary.** The above guideline allows food administrators to serve only 1 oz. of protein per meal, and 5 oz. of protein a week. Many critics of the above guideline advocate that 1 oz. of meat or a meat alternative is not substantial enough for active students with high fat
metabolisms. For less active students, it may be appropriate. The focus group agreed that a one-size fits all diet is not appropriate and should be reexamined, and the guidelines revised. The 2009 report published by the Institute of Medicine recommends that children from ages to 4-18 years of age maintain a diet that is made up of 45-65% of carbohydrates, 10-30% of protein and 25-35% of fats (p. 15). Therefore, the guideline above, while difficult to implement for some food administrators, is on target with the recommendations of the IOM and the *Dietary Guidelines for Americans, 2010.*

**Fat-Free Milk Choices.** The ninth item of the survey completed by 10 school lunch administrators was designed to determine if only fat-free chocolate milk and fat-free, low-fat milk choices were being offered to students during lunch (see Table 13 for results).

Table 13

*Offer Only Fat-Free Chocolate Milk; and Fat-Free, Low-Fat Milk Choices*

<table>
<thead>
<tr>
<th>Participant</th>
<th>How often does your school implement this guideline?</th>
<th>Has your school had training to implement this guideline?</th>
<th>How often does your school monitor this guideline?</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
<tr>
<td>P2</td>
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<td>P4</td>
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<td>P5</td>
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<td>P6</td>
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<td>Yes</td>
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<td>P7</td>
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<td>P9</td>
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</tr>
<tr>
<td>P10</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
</tr>
</tbody>
</table>

*P indicates participant*

**Data Analysis.** All of the participants indicated that they offer only fat-free chocolate milk and fat-free, low-fat milk choices to students enrolled in the National School Lunch Program. Likewise, all 10 of the participants indicated that they have received the proper training
to implement the guideline. Only one participant indicated that they only sometimes monitor the guideline.

**Focus Group Commentary.** The focus group expressed that they were not surprised at the responses relating to this guideline. One participant indicated that their school had switched over two years ago. They were expecting to get more comments from students, but instead the students were very accepting of the switch over to fat-free milk. One participant highlighted that when milk is fat-free, there is a higher sugar content in the milk. Another participant indicated that when they switched to fat-free milk, they chose a sucrose-based milk instead of corn syrup based milk to avoid the higher sugar content. A higher associated cost with the corn syrup based fat-free milk does exist, but the participant agrees that it is worth the added cost.

**Summary.** All of the participants of the survey indicated they are in compliance with the guideline, and the focus group indicated that students were overwhelmingly supportive of the implementation of the guideline. One school switched to corn syrup based fat-free milk to reduce the sugar content, and the consistency of the milk is more similar to that of high-fat content.

**Minimum and maximum calorie levels.** The tenth item of the survey completed by 10 school lunch administrators focused on the ability of schools to meet the maximum and minimum caloric levels for each age group as recommended by the National School Lunch Program (see Table 14 for results). The USDA affirms that by setting a limit to calories for school meals, food administrators will have to be meticulous while planning meals and in turn ultimately selecting only nutrient dense foods to serve to students.

Table 14

*Ensure All Meals Meet the Maximum and Minimum Calories Levels for Each Age Group*
<table>
<thead>
<tr>
<th>Participant</th>
<th>How often does your school implement this guideline?</th>
<th>Has your school had training to implement this guideline?</th>
<th>How often does your school monitor this guideline?</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
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<td>P2</td>
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</tr>
<tr>
<td>P10</td>
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<td>Yes</td>
<td>Always</td>
</tr>
</tbody>
</table>

*P indicates participant

**Data Analysis.** Only this guideline, controlling minimum and maximum caloric intake, indicated total compliance. Furthermore, all of the participants indicated that they always monitor the guideline.

**Focus Group Commentary.** The focus group participants were not surprised at the responses of the survey participants, because in order to receive reimbursement from the NSLP, you must be in complete compliance with the above guideline. However, the group agreed that the maximum for high school students is too low. They agreed that it is not enough calories, the heart needs calories to pump: the brain to think and the number of calories that some students are receiving is not enough for their bodies to function at its highest capacity. The group discussed how this guideline has severely inhibited the community building activities they have held in the past, like a cookout. Additionally, they are unable to plan any theme meals, because there is no room for additional desserts, candies, or cookies. They agreed that students are hungry, and that there has been, what some might consider, a reasonable decrease in the participation in the NSLP. The schools have had to decrease the amount of food they are giving students, while increasing the meal price for students.
Summary. The maximum caloric requirement is the most controversial guideline. Students who lead active lifestyles are not being served an adequate amount of food. Schools have begun to offer more a la cart items to students, but students have to pay for the food. Students have resorted to bringing their own lunch to supplement the school lunch. One participant suggested that they increase the amount of grain and protein that they can offer so active students like athletes have enough energy for the day and for their extracurricular activities.

Reduction of Sodium Content. The eleventh item of the survey completed by 10 school lunch administrators focused on the ability to reduce the sodium content of all meals by 5%-10% as recommended by the National School Lunch Program. By implementing all of the above guidelines, it can be assumed that there will be a reduction in the sodium content of school meals. (See Table 15 for results.)

Table 15

Reduce the Sodium Content of All Meals by 5% to 10%

<table>
<thead>
<tr>
<th>Participant</th>
<th>How often does your school implement this guideline?</th>
<th>Has your school had training to implement this guideline?</th>
<th>How often does your school monitor this guideline?</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Always</td>
<td>Yes</td>
<td>Always</td>
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<td>P2</td>
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<td>P7</td>
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</tr>
<tr>
<td>P10</td>
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<td>Yes</td>
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</tr>
</tbody>
</table>

*P indicates participant
Data Analysis. Of the participants surveyed, 80% of the respondents indicated that they always follow the recommended guideline of reducing the sodium content of all meals by 5%-10%, while 20% indicated that they only sometimes implement the guideline. All 10 of the participants indicated that they have received training to implement the guideline, and all of the participants always monitor the successful implementation of the guideline.

Focus Group Commentary. Most of the focus group participants indicated that they are working toward to scaling back on the sodium content of their meals; one participant indicated that she already have reduced the sodium content of their meals by 10%. One participant had some concern about the guideline. She indicated that the population that she serves eats out a lot in their family lives and prepares premade meals often; they are used to meals with high sodium content. She is concerned that by reducing the sodium content by 10% students will chose to opt out of the school meal program.

Summary. School food administrators have three years to reduce the sodium content of their meals by 5-10%. At the end of three years, they will again be required to reduce the sodium content of their meals. Like many other guidelines, food administrators are concerned that the meals they will be serving will be vastly different in taste from the meals students are receiving at home. However, all of the focus group participants indicated that by complying with the guideline the health of students will improve.

Focus Group Results

General discussion of guideline implementation. After the review of each of the 11 guidelines, the focus group responded to questions regarding (a) the easiest guidelines to implement, (b) the most difficult guidelines to implement, (c) suggested alternative guides, (d) outcomes of the proposed guidelines, and (e) training offered for successful implementation of
the guidelines. A data analysis appears for each topic. Questions relating to each of the five topics and the participations’ responses appear in Tables 16 -22.

**Easiest guidelines to implement.** Some of the new guidelines were not new to the interview participants. All of the interview participants agreed that they have been using appropriate age/grade groups while menu planning. All agreed that they were using the recommended age groups for years before school year 2012-2013. Other guidelines that were cited as easier to implement include offering fruit during lunch and offering separate portions of fruit and vegetables. One interview participant stated that all of the guidelines were challenging to implement. (See Table 16 for the question and actual responses.)

Table 16

*Easiest Guidelines to Implement*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Which of the federal guidelines are easy to implement?</th>
</tr>
</thead>
</table>
| A           | 1. Use the age/grade groups K-5, 6-8 and 9-12 to plan menus in the NSLP starting the 2012-2013 school year.  
2. Offer fruit during lunch.  
3. Offer only fat-free chocolate milk; and fat-free, low-fat milk choices. |
| B           | 1. Use the age/grade groups K-5, 6-8 and 9-12 to plan menus in the NSLP starting the 2012-2013 school year.  
2. Offer fruit during lunch. |
| C           | None of them are easy. |
| D           | 1. Use the age/grade groups K-5, 6-8 and 9-12 to plan menus in the NSLP starting the 2012-2013 school year.  
2. Offer separate fruit and vegetable portions throughout the week. |

**Most difficult guidelines to implement.** All of the interview participants agreed that the hardest guideline to implement is the guideline ensuring that all meals meet the maximum and
minimum calorie levels for each age group. The Focus Group also expressed great concern about the calorie restrictions for high school students. One participant indicated that she feels they are feeding active students enough food to walk to class and fall asleep. It was further stated that theme meals and activities with food, which previously served as community builders, are no longer possible. Other interview participants spoke to the difficulty of providing only whole grain rich products due to the increase cost and reduced portion sizes. (See Table 17 for the question and actual responses.)

Table 17

*Most Difficult Guidelines to Implement*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Which of the federal guidelines are more challenging to implement? Why?</th>
</tr>
</thead>
</table>
| A           | 1. Provide whole grain rich products that make up half of all grain products.  
              2. Ensure all meals meet the maximum and minimum calorie levels for each age group.  
              3. Offer such vegetable subgroups as dark green, red/orange, beans, peas and other starchy vegetables. |
| B           | 1. Provide whole grain rich products that make up half of all grain products.  
              2. Ensure all meals meet the maximum and minimum calorie levels for each age group. |
| C           | 1. Provide whole grain rich products that make up half of all grain products.  
              2. Ensure all meals meet the maximum and minimum calories levels for each age group. |
| D           | 1. Ensure all meals meet the maximum and minimum calorie levels for each age group.  
              2. Offer such vegetable subgroups as dark green, red/orange, beans, peas and other starchy vegetables. |

Therefore, two participants agreed that they would like to see a guideline that allows for more grains, protein, and potatoes. All participants spoke to the idea

**Suggested alternative guidelines.** Interview participants were asked if they could suggest a new guideline, what it would be. Two participants agreed that they would like to see a guideline that allows for more grains, protein, and potatoes. All participants spoke to the idea
that a one-size fits all diet is not appropriate for all students, and one survey participant said that there should be a wellness component. She indicated that to create a healthier group of citizens, physical fitness is an integral part to sustaining a healthy America. Lastly, one interview participant would like to see a higher allowance to purchase tools to help reduce the cost of preparing whole foods in mass quantities. (See Table 18 for the question and actual responses.)

Table 18

*Suggested Alternative Guidelines*

<table>
<thead>
<tr>
<th>Participant</th>
<th>If you were to propose another guideline, what would it be?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Allow more sodium content to meals</td>
</tr>
<tr>
<td>B</td>
<td>Purchase tools such as apple slicers to help reduce the cost of waste</td>
</tr>
<tr>
<td>C</td>
<td>Allow more grains, protein and potatoes</td>
</tr>
<tr>
<td>D</td>
<td>Allow more whole grains, ad emphasis on physical wellness</td>
</tr>
</tbody>
</table>

**Outcome of the proposed guidelines.** The researcher asked all of the survey participants what they thought the future of the recent federal guidelines will be. Two participants indicated that the guidelines as they currently stand will have to be revised. One participant showed uncertainty as to the future of the guidelines. One interview participant indicated there needs to be more calories for students who are athletes. The same participant would like to have more diverse options for menu planning. (See Table 19 for the question and actual responses.)

Table 19

*The Outcome of the Proposed Guidelines*
In general, do you believe the new federal regulations, such as the Health, Hunger-Free Kids Act of 2010, will improve the health of children? Why or why not?

A) Will be adapted, but might have positive outcomes for the health of children
B) Will be dramatically revised to fit the needs of active students.
C) Not likely to have a major impact, as the issue at hand is cultural
D) Unsure

D) They will change to have more diverse meal plans, i.e. more calories for athletes

Training offered for successful implementation of guidelines. It was unanimously agreed that there was enough training. While the study was taking place, many of the food administrators, who participated in the study, were at a national NSLP conference. However, one participant indicated that there was too much training. She explained that a lot of time was spent in training, a lot of resources, and webinars were provided. She indicated that she would like to see the money for the training used in other ways, like kitchen supplies. The interview questions very closely mirrored the survey responses as most participants agreed that there was always or sometimes training for each of the guidelines. (See Table 20 for the question and actual responses.)

Table 20

Training Offered for Successful Implementation of Guidelines

<table>
<thead>
<tr>
<th>Participant</th>
<th>Does your school offer training to help increase the understanding of these guidelines?</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Adequate</td>
</tr>
<tr>
<td>B</td>
<td>Sufficient</td>
</tr>
<tr>
<td>C</td>
<td>Too much, funding should have been spent in other capacities</td>
</tr>
<tr>
<td>D</td>
<td>Sufficient</td>
</tr>
</tbody>
</table>
CHAPTER V

Conclusion

In the United States the cost of healthcare for diet related conditions has surpassed 10 billion dollars annually (Morgan & Sonnino, 2008, p. 70). The National School Lunch Program has recently taken drastic measures to ensure that the diets of schoolchildren are healthy and nutritious. Meals served under the National School Lunch Program umbrella are not solely responsible for making American children obese. The increase in obesity has put pressure on school officials across the nations and has drawn in stark criticism to food administrators in America. Schools are very much in compliance with the federal regulations of the National School Lunch Program. While the costs for meals and preparations have increased dramatically, schools have proven themselves very resilient. Many schools are outsourcing their menu planning to an outside company, which can produce cost effective meals that are high in nutritional value.

Many food administrators do not value a one-size fit all diet. During interviews with the participants, the reoccurring theme was under the new guidelines students are hungry and frustrated. As the high school guidelines stand now, no matter how active or inactive the students are the maximum caloric intake at lunch is 850 kcal. It was argued that for a student participating in football practice or other sports activities, the caloric content of the school lunch was not sufficient. The amount of food required should be based on the amount of energy expended. The Institute of Medicine reported, “Energy is required to sustain body functions such as respirations, circulation, physical work, and core body temperature and to meet growth requirements. Energy intake should be commensurate with energy expenditure so as to achieve energy balance” (Stallings & Yaktine, 2007, p. 43). For students who are less active, the current caloric maximum
seems appropriate, but for those students who live very active life styles, it does not appear to be very realistic.

Eradication of childhood obesity is more complex than simply serving healthy meals in schools which strict caloric maximums. While nutrition is a vital component in securing a healthier generation of Americans, physical activity is equally as important. The National School Lunch Program has been developed through the collaboration of the U.S. Department of Agriculture and the Institute of Medicine as well as other partnerships. The program is constantly being monitored to provide healthy, nutritious food and to address the health needs of America’s children. According to Martin and Oakley (2008), “Experience has shown that success is achieved through collaboration and partnership. Working collaboratively with alliances and partners, school nutritional professionals will continue to work toward closing the hunger gaps that exists at home and abroad” (p. 135). It is the hope of the food administrators participating in this study that an equal emphasis will be put on the physical well-being of children, and there will be more collaboration between nutrition and physical fitness professionals.

The purpose of the study was to discover how well local K-12 schools in Southeast Wisconsin were implementing the recent federal guidelines of the National School Lunch Program. Methodology of the study included a triangulation of review of research, a survey of 10 administrators of school lunch programs, and a focus group. The findings of the study may be useful for policy makers, administrators of school lunch programs, parents and agents of social change to understand the struggles of implementing the federal guidelines and to enhance the National School Lunch Program further.

Conclusions
With respect to the purpose of the research, the subsequent recommendations appear justified:

1. The first research question of the study was to determine how well and to what extent do local K-12 schools implement recent federal guidelines for school meal programs. Most of the participants indicated complete or some compliance with all of the guidelines. Almost all of the survey participants indicated that they were receiving the training necessary for successful implementation of the guidelines. The guidelines that showed various levels of compliance were ones that the government has given schools 1-3 years to implement fully, hence some obvious noncompliance for the first year of the regulated guidelines is to be expected.

2. The second research question of the study was designed to explore why schools implement or do not implement the federal guidelines recommended for school meal programs. The focus group explained that most of the guidelines that illustrated noncompliance were subject to longer timelines than the other guidelines, and the schools were making progressive steps to be in compliance by the final deadlines. The focus group and interview participants agreed that the most difficult guideline to implement was the calorie maximum for high school students.

3. The final research question sought to find what the similarities or differences between the recommendations implemented in public versus private local K-12 schools in Southeast Wisconsin. The major difference between public and private school administrators is that many private schools in Milwaukee have used an outside organization to do their menu planning and to supply them with the food. In contrast,
the public school participants did all of their menu planning and food preparation at
the district level.

Recommendations

With respect to the purpose of the research, the following conclusions appear warranted:

- Police makers should reconsider the investment of time and energy in training
  because all of the research participants indicated that they had enough professional
  training and opportunities for professional development. The resources used for
  training food administrators would be better used to develop training opportunities for
  educations and parents alike.

- Administrators of private schools need to be more contentious about their
  implementation of the federal guidelines, especially for: Guideline 4, Allow frozen
  fruit without added sugar and; Guideline 6, Serve only refined, enriched grains.

- The National School Lunch Program has made great strides in serving nutrient rich
  meals to students, but there appears not to be an emphasis on a wellness component to
  the program as it currently stands. Students would receive lifelong benefits from
  participating in an NSLP that includes a physical fitness component.

- Like many social issues, a one-stop solution does not exist. To eradicate childhood
  obesity and reduce the incidents of diabetes, parent education must be a component of
  teaching nutrition in schools. Like many in the focus group, interview participants
  indicated that the problem of nutrition is a cultural issue that will never be fully
  solved through the NSLP. Parents should receive training, much like the food
  administrators do, on the reasoning behind the implementation of the guidelines and
  on the scientific research supporting the guidelines.
• All of the focus group participants were happy to have had the opportunity to speak to
other professionals in the field of school nutrition; therefore, it is the recommendation
of the researcher that the NSLP offer more networking opportunities for school food
administrators. Participants were very interested in the results and responses of their
colleagues to the survey. It appears that many food administrators function as islands,
due to limited communication with their peers from different schools and/or
organizations.

Limitations of the Study

• The study was limited to only 10 survey participants. A larger sample would lend
itself toward a more complete analysis of how local schools are implementing the
federal guidelines.

• The focus group many have been limited because it was conducted by a conference
call rather than a face to face setting which would have afforded more opportunities
to read body language, build trust and engage in discussion. The foucs group was also
limited to 1 hour to respect the time of the group’s participants, more time would
have allowed for a deeper discussion of the issues.

• The use of the survey and interview may have been limited due to its subjectivity,
mailing revolving around the responding to the questions.

• The study was a combination of urban and suburban schools. Individual studies of
like schools, rather than a combined study, may discover more similarities in the
difficulties of implementation of the National School Lunch Program.

• The timing of the study coincided with the initial startup of the new federal
guidelines. Political tension was high during the time the survey was being completed
by the participants. Due to the political climate, some participants may have averted conveying the full circumstances being encountered in the schools, which could skew the actual level of noncompliance of any given federal guideline.

- Some of the schools surveyed did menu planning on site at their districts; while others had outside organizations do all of their menu planning. Expanded sampling of the two menu planning types may provide a more concise comparison of the data. In addition to performing future studies of schools from similar areas, the research could limit the samples to a particular type of menu planning.

**Future Research**

Additional research is needed in the area of childhood nutrition, specifically the National School Lunch Program. The NSLP has been constantly changing and improving through nearly 80 years of challenges and successes. Future research is needed to determine if including physical wellness in the NSLP will increase the wellbeing of American children and increase their wellbeing as adults. More research should be focused on the caloric needs of active students to determine if the current caloric maximum in the NSLP positively or negative affects the students’ physical and mental performance and to determine if an increase of the current calorie maximum for active middle and high school students should be implemented. Further research exploring how participants in the National School Lunch Program monitor successful implementation is necessary as monitoring happens at multiple levels. Food administrators order food, kitchen staff prepare the food, and check-out clerks monitor the choices of students. Lastly, interview participants and focus group participants alike spoke about a lack of variety of food being served to students due to the strict federal guidelines. Future research that focused on how
schools used cultural food for their target populations to increase variety of food served to students.

**Concluding Remarks**

Like all living, breathing organizations and programs, the National School Lunch Program should continuously reevaluate and rejuvenate itself. With change comes hesitation and resistance, it is imperative that the NSLP continues to strive forward to serve healthy meals to children. As the political landscape changes, so will federal programs like the National School Lunch Program, “child nutrition programs are positioned at the center of the nation’s efforts to improve the health, education, and nutrition for children. Programs of the future as in the past will face trials and triumphs” (Martin & Oakley, 2008, p. 136). While many of the participants’ hesitations discussing the program may be due to a fear of change, I believe that ultimately the National School Lunch Program will continue to be a nationwide success.

Many of the participants of this study indicate that the National School Lunch Program is not solely responsibility for the obesity epidemic in America. I am hopeful, because there has been much attention given to the nutritional value of meals served in schools. Having healthy citizens entails so much more, it is the culture and lifestyle of America that must be changed. The idea that skinny is thin must be ignored, and more physically active lifestyles should be the norm. According to Stallings and Yaktine (2007), “it is possible to be well-nourished and not physically fit, but it is not possible to be physically fit without being well-nourished (p. 92). Programs that explain food labels and energy intake will help to educate the public and to improve their diets.

Having the great privilege of living overseas for nearly three years, while serving in the Peace Corps, I consumed only true organic food that was harvested by my host family. Upon my
return to the states, I realized we had a very big problem with food in our country. I began this research study like many people, looking for someone to blame for the obesity epidemic in our nation. I learned very quickly that the American food policy nor the food administrators of the National School Lunch Program are at fault for the unhealthy state of many Americans today. Because of obesity, food insecurity and hunger, “many counter movements have looked at food as one of the best examples of the cultural reductionism and unsustainability of modernization and its corporate logic” (Morgan & Sonnino, 2008, p. 7).

I chose to explore the National School Lunch Program, because children are the often the most vulnerable, and the children do not get a choice, it is chosen from them. Therefore, it is imperative that the National School Lunch Program continues its promise to serve healthy and nutritious food to students around the nation. Martin & Oakley (2008) discussed the concept of homegrown leaders as people who are in leadership roles on the front lines. When discussing the future they write, “The future suggests the advantages of homegrown leaders, because they understand both the cultural and economic environment in which the program operates” (Martin & Oakley, 2008, p. 828). Local food administrators understand their markets and are essential to creating and implementing healthier and more sustainable programs. Unfortunately, there is no federal, state, or local policy that will make a healthier America by itself, the responsibility is ours.
References


Institute of Medicine of the National Academies. Retrieved from


http://www.cspinet.org/reports/jacobson.pdf


Appendix A

Marquette University Research Information Sheet

The National School Lunch Program: Local Implementation and Federal Reform

Shannon Cagney
Professional Studies

Thank you for your willingness to participate in my research study. Just to reiterate, the purpose of this study is to examine the implementation of the National School Lunch Program. The study involves completing a survey (estimated time 10-20 minutes) followed by a phone interview (approximately 15-20 minutes). Some participants will also be asked to take part in a focus group (approximately 60-90 minutes). Focus group participants will be randomly selected. Your responses will be anonymous and will not be associated with your name or the name of your school. By participating in this study you are giving your permission to the researcher to use your survey, interview, and focus group responses in research publications or presentations.

If you have any questions about this project, you can contact Shannon Cagney at shannon.cagney@marquette.edu or 231-286-1943.

Thank you for your participation!

Kind regards,

Shannon
Appendix B

Survey: The National School Lunch Program Recommended Guidelines

**Purpose:** To survey local schools on their implementation of recent guidelines from the National School Lunch Program.

**Directions for Part A:**
Provide the basic information on your school food program below. All information will be kept strictly confidential.

Enrollment _____ Daily meal costs per student: Breakfast $____ Lunch $____ Enrollment Free Lunch Program:__________
Your Title:_____________ Number of Years you have been planning school meals:_________
Does your school… have vending machines with soda?_____ Have vending machines with snacks such as candy bars and chips?_____ Offer snack bars outside of lunch with fruit and/or vegetables?____

**Directions for Part B:**
The left column contains the recent guidelines from the National School Lunch Program. For each guideline, circle your responses for each of the three questions on the right.

<table>
<thead>
<tr>
<th>NSLP Guidelines over the course of a week</th>
<th>How often does your school implement this guideline?</th>
<th>Has your school had training to implement this guideline?</th>
<th>How often does your school monitor this guideline?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use the age/grade groups K-5, 6-8, 9-12 to plan menus in the NSLP starting the 2012—2013 school year.</td>
<td>Always Sometimes Never</td>
<td>Yes No</td>
<td>Always Sometimes Never</td>
</tr>
<tr>
<td>Offer separate fruit and vegetable portions throughout the week.</td>
<td>Always Sometimes Never</td>
<td>Yes No</td>
<td>Always Sometimes Never</td>
</tr>
<tr>
<td>Offer fruit during lunch.</td>
<td>Always Sometimes Never</td>
<td>Yes No</td>
<td>Always Sometimes Never</td>
</tr>
<tr>
<td>NSLP Guidelines over the course of a week</td>
<td>How often does your school implement this guideline?</td>
<td>Has your school had training to implement this guideline?</td>
<td>How often does your school monitor this guideline?</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Allow frozen fruit without added sugar.</td>
<td>Always  Sometimes  Never</td>
<td>Yes  No</td>
<td>Always  Sometimes  Never</td>
</tr>
<tr>
<td>Provide whole grain rich products that make up half of all grain products.</td>
<td>Always  Sometimes  Never</td>
<td>Yes  No</td>
<td>Always  Sometimes  Never</td>
</tr>
<tr>
<td>Serve only refined, enriched grains.</td>
<td>Always  Sometimes  Never</td>
<td>Yes  No</td>
<td>Always  Sometimes  Never</td>
</tr>
<tr>
<td>Offer meat/meat alternative daily.</td>
<td>Always  Sometimes  Never</td>
<td>Yes  No</td>
<td>Always  Sometimes  Never</td>
</tr>
<tr>
<td>Offer only fat-free chocolate milk and fat-free, low-fat milk choices.</td>
<td>Always  Sometimes  Never</td>
<td>Yes  No</td>
<td>Always  Sometimes  Never</td>
</tr>
<tr>
<td>Ensure all meals meet the maximum and minimum calories levels for each age group.</td>
<td>Always  Sometimes  Never</td>
<td>Yes  No</td>
<td>Always  Sometimes  Never</td>
</tr>
<tr>
<td>Reduce the sodium content of all meals by 5% to 10%.</td>
<td>Always  Sometimes  Never</td>
<td>Yes  No</td>
<td>Always  Sometimes  Never</td>
</tr>
</tbody>
</table>