

The Impact of Local Wellness Policies on School Meals and Wellness in  
Public Schools

by

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## ABSTRACT

There has been a push to create and implement school wellness policies. Childhood obesity statistics suggest that schools may have an important role to play in promoting wellness. Childhood obesity has become a significant problem in the United States. The percentage of obese children in the United States has more than doubled since 1970, and up to 33% of the children in the United States are currently overweight. Among the 33% of children who are overweight, 25% are obese, and 14% have type 2 diabetes, previously considered to be a condition found only in adults.

This mixed-method study with a string qualitative component study examined three aspects of federally mandated local wellness polices. The study investigated the policies themselves, how the policies are understood in the local school setting, with a particular focus on the impact the policies have had on school meals. The bulk of the research data was generated through 8 in-depth interviews. The interviews were conducted with key stakeholders within 2 elementary school districts in Arizona. In addition, the evaluation of 20 local wellness polices was conducted via a rubric scoring system. The primary component found to be lacking in local wellness policies was the evaluation method. Recommendations for school districts include the establishment of a clear method of measurement.

## DEDICATION

To Stephen and Max, who inspire me to continually better myself.

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## Chapter 1

### **Introduction**

This qualitative research study examined three aspects of federally mandated local wellness policies. The study will investigate the policies themselves, how the policies are understood in the local school setting, and will then focus, in particular, on the impact the policies have had on school meals. Why is this topic so important to research? Perhaps a personal story will help shed light on the impact that research in this area could have on wellness.

I know a man who was once strong and lean. He could run for miles while carrying a full backpack, and would do sit-ups in the living room with his son sitting on his feet. As the years passed, he remained spiritually strong, but his physical strength began to fade. This man had the bad habits of smoking and drinking alcohol, which superseded his habit of exercising. His eating habits became worse. Slowly, his weight increased along with physical ailments. Eventually, his weight elevated from overweight to obese, and he was diagnosed with high cholesterol, type 2 diabetes, sleep apnea, and congestive heart failure. He is now required to wear an oxygen mask 24 hours a day because his lungs are not producing adequate amounts of oxygen. Many family members began to intervene: they bought healthy groceries for him and planned meals that would be heart healthy. However, he does not see the importance of changing his habits at this point in his life.

He feels that he is too old to change, and he just wants to let nature take its course. This man is my father.

When I think of my father, I remember that there are many people in the United States in similar situations. For many people, bad habits that were developed slowly over the years have suddenly become a severe detriment to their health and well-being. This leads me to posit that habits such as maintaining a healthy diet and exercise routine are best developed early in life while children are still school-aged. Therefore, what better place to offer positive influences on these lifestyle habits than in schools?

### **Background of the Study**

I have worked in public education for 10 years. During this time, I have simultaneously taught group fitness classes at local gyms and become a nationally certified group fitness instructor. While I have not taught physical education, I have integrated health and wellness lessons into my daily elementary curriculum. I have also conducted Healthy Living for Families classes for our school community that took place after school hours. These classes centered on the importance of developing healthy lifestyles and increasing physical activity in everyday life.

From my experiences, I have learned that individuals want to live healthy lives; however, many do not understand how to begin this process. Many families resort to the foods that they have always eaten instead of foods that are better for the overall wellness of the family. My theory is that people are creatures of habit, and the foods that they are exposed to early in

life become lifelong habits. Because most North Americans participate in school meals, schools are a logical platform to help establish habits that are generally better for the overall wellness of individuals.

While there has been a recent push to increase wellness in schools, the facts on childhood obesity indicate the obstacles that schools face in attempting to achieve wellness. Childhood obesity has become a significant problem in the United States. The percentage of obese children in America has more than doubled since 1970, and up to 33% of the children in the United States are currently overweight (Baur, Lobstein, & Uauy, 2004; Cooper & Holmes, 2007; Murnan, Price, Telljohann, Dake, & Boardly, 2006). Among the 33% of children who are overweight, 25% are obese, and 14% have type 2 diabetes, which was previously considered to be a condition found only in adults (Cooper & Holmes, 2007).

The statistics on obesity are calculated by consistently using a popular formula. Body mass index (BMI), calculated based on weight and height, is commonly used to classify overweight and obese adults, and is also recommended for identifying children who are overweight or at risk for becoming overweight (Anderson & Butcher, 2006; Centers for Disease Control and Prevention [CDC] 2010). A person is considered overweight when they have a BMI at or above the 95th percentile, which is a BMI of 25-29.9, based on age and gender specific growth charts developed by the CDC. A person is considered obese when they have a BMI of 30 or above (Anderson & Butcher, 2006; CDC, 2010).

The BMI provides a way to report the health of the population. Unfortunately, the BMI indicates the population is very unhealthy, and a growing number of children are overweight or obese. Parents, teachers, school administrators, and pediatricians are concerned with the health of our children and the negative impact that increased weight can have on them. Not only is a child's health at risk with a poor diet, but their cognitive functioning can be impaired as well (Cooper & Holmes, 2007; Murnan et al., 2006; Taras, 2005). Academic performance and cognitive functioning has been noted to increase when daily meals are offered (Taras, 2005). Clearly, diet has an impact on physical and educational well-being.

The types of food that children eat contribute to obesity. Processed foods, such as cheeseburgers, french fries, pizza sticks, pigs in a blanket, and triangle shaped fish, have been favored by schools for their convenience (Cooper & Holmes, 2007; Stewart, 2004). These are the foods are thought to contribute to obesity (Cooper & Holmes, 2007; Stewart, 2004). Processed foods contain additives and preservatives that are unhealthy and can lead to a variety of illnesses (Cooper & Holmes, 2007). Most importantly, these low-nutrient foods often displace healthier alternatives, such as fresh fruits and vegetables, and as a result can reduce a child's diet quality and their intake of essential nutrients (Briefel, Gleason, & Wilson, 2009). School food service directors most often focus on simplified food preparation instead of healthy options because they lack the skilled staff and necessary facilities to do more (Cooper & Holmes, 2007; Stewart, 2004). Processed food may be beneficial in

terms of convenience, but the detriment to children's health outweighs this convenience.

According to Cooper and Holmes (2007), many Americans simply do not know how to eat properly; therefore, fast food and other processed foods become substitutes for healthy cooking. Because parents lack knowledge about nutrition, they rely on others for nutritional expertise. In respect to schools, parents rely on the United States Department of Agriculture's (USDA) approved National School Lunch Program (NSLP) to provide their children with nutritionally sound and balanced, healthy meals (Cooper & Holmes, 2007). The problem is that school meals are not always nutritionally sound.

Schools play a role in shaping children's attitudes and behaviors relating to food. Specifically, school food policies determine what foods are accessible to children while they are on school grounds (Briefel et al., 2009). In 2004, the Child Nutrition and Women, Infants, and Children (WIC) Reauthorization Act required schools to increase the nutritional quality of school meals. However, many schools have continued to provide meals with inadequate nutrition and some are actually contributing to the obesity crisis that we have seen emerge in recent years (Clark & Fox, 2009; Cooper & Holmes, 2007; Schanzenbach, 2009). In fact, it has been discovered that children who eat a school lunch are substantially more likely to be obese (Schanzenbach, 2009). Though legislation has been enacted to change the nutrition children are receiving on school campuses, schools have not been

successful in implementing more nutritional lunches. Cooper and Holmes (2007) stated that 78% of the schools in the United States do not meet the nutritional guidelines put forth by USDA in regards to the meals they serve. There is also evidence that school meals are created with the misguidance that students prefer to eat frozen, processed, fried, and sugar-laden foods (Cooper & Holmes, 2007). Children in schools within the United States are being trained to eat fast food or fast food lookalikes in a fast food environment, thus fostering life-long consumers of convenience-type foods (Weaver-Hightower, 2011). Schools need to reevaluate what foods they are serving children and why they are serving them.

Despite the current situation, school meals can be an opportunity to improve students' health. One way to combat childhood obesity may be to help students develop healthier eating habits while they are at school (Briefel et al., 2009; Grainger, Senauer, & Runge, 2007). The school food environment provides an important and realistic opportunity to improve children's diet and health behavior (Briefel et al., 2009). Furthermore, the creation of healthier school lunches has the potential to impact a large number of children across socioeconomic status, race, and geographical boundaries (Schanzenbach, 2009). School feeding programs are an integral component to our students' well-being, both physically and, as we will see later, mentally.

Physical activity, an additional component of wellness in schools, has also been linked to increased brain function. John Ratey, MD, (2008) a clinical



associate professor of psychiatry at Harvard Medical School, described a connection between physical activity and learning. Ratey (2008) has reviewed studies undertaken at Naperville Junior High School that have shown an increase in learning when preceded by exercise. Students who participated in a zero hour physical education class showed a 17% increase in reading comprehension. Their counterparts, who did not participate in physical activity prior to instruction, showed a 10.7% gain in comprehension scores (Ratey, 2008). Ratey (2008) also stated that studies such as these have been duplicated in other schools that adopted regular aerobic exercise. This shows the possibility that wellness programs that include physical activity can lead to an increase in test scores, thus establishing the need to look further into the relationship between wellness and mental performance.

Habits developed at school may transfer to children's homes, and may affect adult eating habits. Because of the potential impact a healthy diet and physical activity has on wellness, society needs to pay attention to the types of food that are being fed to children, and the amount of physical activity in which they are participating. The risks and facts associated with childhood obesity indicate the need for action in this arena. The facts related to childhood obesity have not gone unnoticed and have inspired the creation of legislation, such as the Child Nutrition and WIC Reauthorization Act of 2004 discussed earlier (see Appendix A). This act is Section 204 of Public Law 108-265, and was enacted by the United States Congress. It outlined the requirement that all school districts participating in a program authorized by

the Richard B. Russell National School Lunch Act or the Child Nutrition and WIC Reauthorization Act of 1966, which are federally funded meal programs, must develop and implement wellness policies. These policies mandated requirements that attempted to address nutrition and physical activity in schools by the first day of the 2006-2007 school year.

To assist with the goal of reducing childhood obesity, this legislation requires that all school districts receiving federal funds through the National School Lunch Program design and implement a wellness policy. These policies must follow five guidelines (see Appendix A) (Child Nutrition and WIC Reauthorization Act, 2004). First, the policy must include goals for nutrition education, physical activity, and other activities at the school level that promote student health and wellness (Child Nutrition and WIC Reauthorization Act, 2004). Secondly, the wellness policy must include nutrition guidelines selected by the local educational agency for all foods that are available at each campus during the school day. Also, the objectives for these foods must promote student health and help to reduce childhood obesity (Child Nutrition and WIC Reauthorization Act, 2004). Third, the policy must assure that the guidelines for reimbursable school meals will not be less restrictive than the guidelines set forth by the Secretary of Agriculture's subsections (a) and (b) of section 10 in the Child Nutrition and WIC Reauthorization Act (42 U.S.C. 1779) and section 9(f)(1) and 17(a) of the Richard B. Russell National School Lunch Act (42 U.S.C. 1758 (f)(1), 1766(a)) (Child Nutrition and WIC Reauthorization Act, 2004). Fourth, a plan for

measuring the implementation of the local wellness policy must be put in place as well. This includes designating one or more people from the local educational agency who ensure that the schools meet the local wellness policy (Child Nutrition and WIC Reauthorization Act, 2004). Lastly, parents, students, school food authority representatives, school administrators, the school board, and the public must contribute to the development of the school wellness policy (Child Nutrition and WIC Reauthorization Act, 2004). Ideally, these guidelines will lead to healthier nutrition for school meals, and aid in the reduction of childhood obesity.

### **Statement of the Problem**

In the United States, childhood obesity is found at an epidemic rate. The national rate of children who are obese in the United States is 19.6% (CDC, 2010). In Arizona specifically, nearly 18% of children are obese (Kogan, Singh, & Van Dyck, 2010). Arizona's rate of obesity rose by nearly 46% between 2003 and 2007, which is more than any other state in the nation (Kogan et al., 2010).

An inquiry into local wellness programs and their impact on school meals within Arizona can inform the researcher whether or not the guidelines for healthy meals are reflected in the menus for food served by schools. An inquiry will allow for research to be conducted on what is being done within school meal programs to increase the nutritional value of the food being served to the students. Likewise, research into how key school

personnel view wellness within a district will aid in understanding the role that schools are taking in promoting student wellness.

### **Purpose of the Study**

This study intended to inquire into whether or not school wellness policies have changed school meals. In addition, the study considered how school district personnel understand the concept of wellness and promote wellness within their school districts. The study then examined how those policies are mediated and transferred into the local school setting. This study addressed the following questions:

1. How is the local wellness policy being implemented within the context of two metropolitan school districts in Arizona?
  - a. Do the local wellness policies, as written, meet the guidelines of the Child Nutrition and WIC Reauthorization Act of 2004?
  - b. How do local school personnel understand the concept of wellness?
  - c. What are the individuals' understandings of the guidelines that they should follow and how are the policies being implemented?
2. Has the federally mandated local wellness policy changed meals served within these school campuses in two metropolitan school districts in Arizona? If so, what is the nature of the changes?
3. How are these school districts promoting wellness values within their districts?

- a. How is the policy being mediated and transferred into the school setting?

These questions were investigated through a combination of qualitative research methods. Document analysis and in-depth interviews were conducted. A rubric was used to analyze local school wellness policies. School meal menus were reviewed to evaluate if changes were made to school meals to comply with the Child Nutrition and WIC Reauthorization Act of 2004. Also, standardized, open-ended interviews were conducted with four key personnel from two metropolitan school districts within Arizona.

### **Organization of the Dissertation**

This dissertation includes five chapters. Chapter 1 serves as an introduction and overview of the research that will take place. The chapter also provides a rationale for the research that will be conducted. In addition, it establishes the personal motives behind the desire to conduct this research.

Chapter 2 consists of a literature review. The literature review examines statistics related to childhood obesity as a means to support a need for wellness initiatives, and discusses school meals' contribution to obesity. Chapter 2 also discusses other local wellness policies and their effects, and examines the scholarly literature on policy mandates and implementation to determine its application to the present study.

Chapter 3 addresses the study's methodology. This study utilized standardized, open-ended qualitative interviews as the foundation of

information. The chapter also includes an examination of documents such as school menus and school districts' local wellness policies. Finally, Chapter 3 provides a detailed discussion of the qualitative techniques used in this particular research study.

Chapter 4 includes an analysis of the research gathered in this study. The chapter also presents and discusses the common themes discovered during interviews and document examination. The information gathered is examined in an evaluative manner. The evaluations provide results that are used to assess the implementation of local wellness policies. The assessments center on answering if and how school meals have changed due to The Child Nutrition and WIC Reauthorization Act of 2004. Discussions in the chapter also stem from the interviews with key school personnel regarding their personal experiences with their districts' local wellness policies. The collected information is triangulated in a variety of ways that yield information useful to practitioners, researchers, and policymakers.

Chapter 5 provides conclusions, implications, and recommendations for educational practices. The conclusions drawn are based on the research collected from two school districts on the implementation of their local wellness policies. It is understood that this research cannot be generalized to all urban school districts; however, implications, and transferable lessons will be posited and discussed based on the data gathered.

## **Chapter Conclusion**

Etling Morrison (1980) stated that the purpose of general education should be to provide citizens with a trial run for the culture in which they will live. Are today's educational institutions providing students with an environment that is sustainable to their current and future wellness? This research study intended to discover how we are imparting wellness education to our students via local wellness policies and school meals. This study also suggests implications for wellness policy implementation in urban public schools.

## Chapter 2

### **Literature Review**

Children spend a substantial amount of time each day in the school environment. For the 62% of students who participate in school lunch programs, a majority of their daily dietary consumption is school meals (Millimet, Tchernis, & Hussain, 2008). According to recent research, meals provided by schools typically lack nutrient density. The types of cuisine offered via school meal programs are considered unhealthy, which contributes to obesity (Clark & Fox, 2009). Through the legislation of The Child Nutrition and WIC Reauthorization Act of 2004 (see Appendix A), schools are now obligated to respond to childhood obesity by implementing a local wellness plan. The following review will examine the impact of local wellness policies. This will be done by first reviewing scholarly literature on four key areas. First, the literature review will highlight the national data that support the need for wellness initiatives. Next, the possibility of school meals contributing to obesity will be discussed. Then, research relating to the examination of the effectiveness of local wellness policies will be reviewed. Finally, the review will present considerations regarding the link between policy enactment and execution.

#### **National Data Supporting Need for Wellness Initiatives**

Obesity is on the rise among school-age children in the United States. Increased weight can impact a child's cognitive, physical, psychological, behavioral, and social health (Murnan et al., 2006). Obesity can lead to short-



term and long-term health effects. Short-term effects include depression, peer rejection, low self-esteem, and even discrimination (Murnan et al., 2006). Long-term effects of obesity may include development of type 2 diabetes, asthma, heart disease, hypertension, high cholesterol, sleep apnea, and obesity in adulthood (Murnan et al., 2006). Due to the negative impact that increased weight can have on children, many parents, teachers, and school administrators are concerned with childhood obesity.

Concern about childhood obesity is warranted: up to 33% of children and adolescents in the United States are overweight or at risk of becoming overweight (Anderson & Butcher, 2006; Baur et al., 2004; Murnan et al., 2006). Obesity most commonly begins in childhood between the ages of 5 and 6, and during adolescence (Burwinkle, Schwimmer, & Varni, 2003). A child is considered obese when their weight is 10% higher than the recommendation for their height and body type, or when their BMI, a ratio of height to weight, is greater than 30 (Burwinkle et al., 2003). Studies have shown that a child who is obese between the ages of 10 and 13 has an 80% chance of becoming an obese adult (Burwinkle et al., 2003). Additionally, studies have discovered that the United States has the highest rate of childhood obesity in the world (Anderson & Butcher, 2006; Baur et al., 2004).

One of the most disconcerting issues is that obesity can have adverse effects that can be fatal. In 2000, it was estimated that 400,000 deaths were related to obesity (Mokdad, 2004). Deaths in the United States that are attributed to poor diet have risen by 33% over the last decade, while deaths

due to other causes have declined (Mokdad, 2004). This trend indicates that obesity is expected to surpass the rate of death by tobacco consumption, which causes 443,000 deaths per year and is considered a preventable cause of death (CDC, 2010). If society can address the issue of obesity early, perhaps the adverse effects can be prevented.

Eating habits have effects beyond an individual's physical health. Studies have established that there is a connection between student health and school achievement. These same studies have shown a link between healthy students and higher academic achievement than unhealthy students (Castelli, Hillman, Buck, & Erwin, 2007; Jefferies, 2007). Researchers from the California Department of Education have reported evidence that students who are physically fit score higher on standardized tests (Grissom, 2005). In another study, researchers examined 259 public schools in Illinois, and discovered that aerobic capacity was positively associated with academic achievement (Castelli et al., 2007). In addition, a study done by the School Food Trust (2009) supported anecdotal reporting by teachers that children are more alert following a healthy lunch. Students were found to be more on-task than a control group who was not given alternative meals that followed food-based standards. It is imperative that schools are attentive to the relationship between what students eat in the lunchroom and students' cognitive abilities in the classroom.

### **School Meals' Contribution to Obesity**

Schools and school meals are likely contributors to the obesity epidemic. One-third to one-half of a student's daily intake of calories is

consumed on school grounds (Gleason & Sutor, 2001; Millimet, Tchernis, & Hussain, 2008). On an average school day, more than 30 million children eat a school lunch and more than 10 million eat a school breakfast (Schanzenbach, 2009; United States Department of Agriculture [USDA], 2007). Ninety-five percent of American youth are enrolled in school, and no other institution has as much “continuous and intensive contact and influence on students during their first two decades of life” (Story, Nanney, & Scwhartz, 2009, p. 72). Because of the considerable amount of school meals served, school meals can influence students’ food choices. School meals can also contribute to development of healthy dietary habits and preferences for students (Cullen, Watson, & Zakeri, 2008; Story, Kaphingst, & French, 2006, & Schanzenbach, 2009). Because of the impact school meals potentially have on students, the foods available to students while at school have been scrutinized.

The goals of the Child Nutrition and WIC Reauthorization Act of 2004 are focused on "establishing healthy school nutrition environments, reducing childhood obesity, and preventing diet-related chronic diseases" (USDA, 2007). One requirement for approaching these goals is to provide school meals with nutritional value. The following paragraph will present and examine research related to school lunches, the nutritional value of these foods, the foods available for student consumption, and what students are choosing to eat.

The nutritional value of school meals is a topic that researchers have recently investigated. Students who participated in NSLP are at risk of receiving inadequate nutrition (Clark & Fox, 2009; Cullen et al., 2008; Gleason & Sutor, 2003). Clark and Fox (2009) discovered that school lunch meals do provide adequate amounts of most vitamins and minerals. However, students eating school meals have an elevated intake of saturated fat, sodium, and total fat (Clark & Fox, 2009; Gleason, & Sutor, 2003). In fact, these amounts were found to be excessive when related to Dietary Reference Intakes (DRIs) and the 2005 Dietary Guidelines for Americans. Clark and Fox (2009) discovered that NSLP participants' diets were associated with an excessive increase of sodium intakes among high school students. In fact, participants in NSLP consumed an average of 200 mg more sodium at lunch than non-NSLP participants (Clark & Fox, 2009). The leading sources of fat and sodium were found in entrées and meat or meat alternatives (Clark & Fox, 2009). Most of these items were commercially prepared and were made specifically for foodservice used in schools (Clark & Fox, 2009). The research revealed that there are many problems with the current nutritional values and preparation techniques for school lunches.

It has been discovered that children who eat school lunches are not only at risk for inadequate nutrition, they are also more likely to become overweight. In a recent dietary recall survey study where students were asked to remember what they had eaten at school on a previous day, it was discovered that students who ate school lunches were at greater risk of being

overweight than their counterparts who do not eat school lunches (Schanzenbach, 2009). Schanzenbach (2009) found that 14% of school lunch eaters are obese by the end of first grade, compared to 11% of brown baggers. The term brown bagger is used to describe students who bring their own lunch. Schanzenbach (2009) explained, “children who eat a school lunch are substantially more likely to be obese” (p. 703). He discovered that children who eat a school lunch consume an extra 40 calories per day at lunch time, which can account for the fact that there is measurable weight gain by the end of first grade (Schanzenbach, 2009). Schanzenbach (2009) pointed out that this correlation might be dependent on factors greater than just school lunch; however, he was unable to find evidence to support the wide variety of possible background characteristics. It has also been shown that students who participate in NSLP and the School Breakfast Program (SBP) have a higher BMI (Hooker & Li, 2010).

Researchers have established that the nutrition available in NSLP contributes to the current obesity epidemic. Millimet, Tchernis, and Hussain (2008) evaluated data from the Early Childhood Longitudinal Study – Kindergarten Cohort (ECLS – K) of 1998-1999. The data within the Early Childhood Longitudinal Study (ECLS) follows a nationally representative cohort of 17,565 children from 994 schools throughout the United States from fall and spring kindergarten, fall and spring first grade, and spring third grade. The health status of each child is measured either in the spring of third grade as the change from fall kindergarten to spring third grade. Through

disaggregation of this data, the researchers established that the NSLP is a contributing factor to the current obesity epidemic among children in the United States. In fact, the researchers actually stated that “NSLP is detrimental to child[ren’s] health” (Millimet et al., 2008, p. 20).

The foods available to our students while at school go beyond items prepared within the school cafeteria. Competitive foods, which are any foods and beverages sold at a school separately from the USDA school meal programs, are also enticing students’ palettes while they are on schools grounds. Competitive foods refer to á la carte items sold in school cafeterias, as well as vending machines, school stores, and snack bars. The USDA has set the standard that school meals should contribute to 33% of the daily energy requirements of children (USDA, 2007). However, research indicated that food consumed while at school provides only 19% of the daily energy requirements of school-aged children (Cullen et al., 2008; Templeton, Marlette, & Panemangalore, 2005). One of the rationales for this statistic has historically been the availability of competitive foods in schools (Templeton et al., 2005). The Child Nutrition and WIC Reauthorization Act of 2004 attempted to limit access of non-nutrition dense foods in schools. Despite the attempts of legislation to remedy the nutrition issue, recent studies have uncovered that the sale of competitive foods to students has increased the risk of students becoming overweight.

Deborah Crooks (2003) conducted a study that analyzed how the school nutrition environment shapes the overweight and nutritional status of

elementary school children. Crooks (2003) discovered that the availability of competitive foods in schools resulted in students eating foods that are less nutrient-dense when compared to those who eat school meals. Crooks (2003) determined that competitive snacks sold to students were a major source of calories for the children in her study and contributed to the risk of overweight children. Crooks (2003) also found that the large servings of fats and oils in snack foods correlated with a decreased number of servings of fruits and vegetables in school meals. Anderson and Butcher (2006) found similar results in their study where they made a correlation between adolescent obesity and the availability of snack foods and beverages in schools with vending machines. Other studies established that most of the competitive foods available to students were foods that are salty, higher-fat snacks (Story et al., 2009).

The frequency of eating competitive foods at school has also been researched. In a national sample of public schools, Fox, Gordon, Nogales, and Wilson (2009), found that 40% of children consumed one or more competitive foods in a typical school day. Among these snacks, the most commonly consumed food groups were dessert and snack items (Fox et al., 2009). The largest percentage of competitive foods consumed as energy intakes was among high school students, who relied on competitive foods for their lunch meal rather than eating a school lunch (Fox et al., 2009). Children who consumed competitive foods received more than 150 calories from low-nutrient food (Fox et al., 2009). In another study, it was discovered that

students who purchased competitive foods reduced the amount of school lunch servings, which was also found to lower intakes of energy for students (Templeton et al., 2005). Researchers agreed that the consumption of competitive foods as a source of energy was problematic. By limiting access to snack foods offered via competitive foods, schools could improve children's nutritional intakes (Briefel et al., 2009; Clark & Fox, 2009; Fox et al., 2009; Templeton et al., 2005).

### **Local Wellness Policies and Their Effects**

The Child Nutrition and WIC Reauthorization Act of 2004 required local education agencies that participated in school meal programs to establish and implement a local wellness policy by the start of the 2006-2007 school year. Studies have been conducted to measure the effects that this policy has had, and how it is being implemented in schools. Overall, researchers found that most states and districts they investigated have begun to implement wellness policies (Carr, Federico, & Molaison, 2008; Longley & Sneed, 2009; Moag-Stahlberg, Howley, & Luscri, 2008; Metos & Nanney, 2007; School Nutrition Association [SNA], 2007). A study conducted in 2007 found that the majority of Utah school districts were complying with federal guidelines (Metos & Nanney, 2007). At that time, 78% of the states' school districts were adhering to the federal guidelines (Metos & Nanney, 2007). A study conducted in 2009 by Longley and Sneed (2009) evaluated the participation of all 50 states within the United States in local school wellness policies. This study showed that 72.4% of the wellness components were in



place in school districts across the United States (Longley & Sneed, 2009). Moag-Stahlberg, Howley, and Luscri (2008) examined data from 256 approved local wellness policies from every state within the United States, except Hawaii. They found that 68% of schools they researched were consistent with the federal mandates and had established a local wellness policy for their schools (Moag-Stahlberg et al., 2008).

Some researchers have discovered that the creation of local school wellness policies has had a positive impact on areas that the policies address. The impact is a result of the manner in which these policies brought attention to nutritional standards (Longley & Sneed, 2009; Moag-Stahlberg et al., 2008). Moag-Stahlberg et al. (2008) reported that 77% of the policies they examined addressed nutrition standards for competitive foods including à la carte, vending, student stores, and concession stands. Longley and Sneed (2009) praised local school wellness policies for bringing about change in the types of foods offered to students, the time and place of availability of foods, and providing high-nutrition foods. Longley and Sneed (2009) also stated that the “progress in the nutrition integrity of foods available in schools is evident” (p. 101). This progress included an increase from 84.3% of schools using nutritional guidelines for school meals prior to the legislation, to 92.3% of schools using nutritional guidelines for school meals after the legislation was enacted (Longley & Sneed, 2009). These statistics indicated that progress was made in the area of food nutrition in schools.

The impact that local wellness policies have had on school food has been researched. Dong-Chul Seo (2009) completed a study, which compared school food policies and preparation practices before and after the local wellness policies were enacted in Indiana high schools. The study took place in the form of a survey given to principals and food service directors. The study uncovered reductions in the amount of junk food—a high-calorie food that is low in nutritional value—being offered to students (Seo, 2009). Prior to the enactment of local wellness policies, 68% of schools offered junk food to students. After the enactment of the policies, 29% of schools offered junk food to students (Seo, 2009). However, it was not found that healthier choices replaced the junk food that was taken away (Seo, 2009). The frequency of fruit being offered in schools increased from 75% to 76%, and vegetable salads increased from 71% to 75% after local wellness policies were enacted (Seo, 2009). The statistics indicated that, while significantly fewer unhealthy foods were being offered, there was only a slight increase in the healthy foods given to students.

Without a doubt, school wellness policies contributed to the decrease of junk food available at school, but the policies did not affect aspects of school nutrition such as food preparation. Seo (2009) found that food preparation practices were not substantially altered or improved due to local wellness policies. The main adjustments to food preparation practices were in the type of dairy products being used in meals. Indiana schools reported using part-skim or low-fat cheese instead of regular cheese (Seo, 2009). Because only minor adjustments were made by schools, Seo (2009)

pointed out that the schools' approaches might be "reactive instead of proactive, focusing on compliance with law rather than in improving students' diet and health" (p. 169). Seo's statement is the basis of the discussion of policy creation and implementation in Chapter 5.

Studies conducted in Texas compared the impact of Texas Public School Nutrition Policy on lunch consumption. Much like Seo's (2009) findings, it was found that there were post-policy improvements to students' dietary patterns, especially for socioeconomically middle class students (Cullen, Fithian, & Watson, 2009). More specifically, students in the Texas study consumed a greater amount of vitamin C and calcium post-policy (Cullen et al., 2009; Cullen et al., 2008). The sodium intake in school meals decreased, as did the percentage of saturated fat, post-implementation of local wellness policies (Cullen et al., 2008). Similar to the competitive foods issue, changes were only made to food preparation after local wellness policies were implemented, as mandated in the Child Nutrition and WIC Reauthorization Act of 2004.

Although students' dietary patterns seemed to improve, specific regulations were absent from school meals. The CDC revealed that states have not placed specific restrictions on school meals post-policy implementation. During the CDC's (2007) routine review of school health policies and program study, it was discovered that few states required schools to restrict the availability of deep fried food . It was also noted that the following food items were not restricted: low-nutrient foods, foods that

are high in fat, foods high in sodium, and foods with added sugars (O'Toole, Anderson, Miller, & Guthrie, 2007).

Researchers have also examined the effect that policies have had on beverages available at schools. It was found that fewer sweetened beverages were offered on school grounds after local wellness policies were instituted (Cullen et al., 2009). For example, during a three-year study of Texas middle schools, the frequency of vending machines used to dispense beverages in schools decreased (Cullen et al., 2008). In the first year of the study, the Texas schools had 21 vending machines in three schools with an 86% dispense rate (Cullen et al., 2008). During the second year of the study, there were 42 machines in the schools and an 83% dispense rate (Cullen et al., 2008). During the third year, after the Texas wellness policies were implemented, there were 23 machines at the schools, with a 63% dispense rate (Cullen et al., 2008). The data suggested that the schools' main motivation for improving problems that will address student health is the wellness policies.

The volume of sweetened beverages dispensed was also adjusted after the wellness policy was implemented in Texas Schools. During the 2005-2006 school year, 12-ounce beverages replaced 20-ounce, sweetened beverages, even though beverage contracts specified that 20-ounce beverages should be sold in machines (Cullen et al., 2008). Vending machines were also turned off during lunchtime. These changes occurred in order to adhere to the local wellness policies in Texas (Cullen et al., 2008).

The previously mentioned research studies also uncovered areas of local school wellness policies that could benefit from further support. Authors cited evaluation and monitoring as an area in need of refinement in local school wellness policies (Longley & Sneed, 2009; Moag-Stalberg et al., 2008; SNA, 2007). Moag-Stahlberg et al. (2008) were concerned with the overwhelming number of policies that did not include language to support plans with measurable objectives. Of the policies examined, 68% named an agency or group responsible for monitoring the policy; however, 79% did not include language to clearly articulate a plan that could be measured quantitatively over time (Moag-Stahlbert et al., 2008). Longley and Sneed (2009) found that Food Service Directors reported less progress in the monitoring of the wellness policy than in the actual development of the policy. Results of surveys also showed that, although nutrition program directors felt supported in regards to local wellness policies, this did not correlate with a high level of confidence about the timely development and successful implementation of the policies (Brenner, Conklin, Cranage, & Lambert, 2009). The School Nutrition Association (2007) reported that while 42% of districts stated they were currently evaluating their policies, 48.8% indicated that they were in the process of planning their evaluation methods. It is also mentioned that a lack of funding may limit how in-depth these local school wellness policies can be evaluated, revised, improved, and supported (Brenner et al., 2009; Moag-Stahlbert et al., 2008).

Research also revealed support for the local wellness policies in the form of resources. In a survey of 575 school nutrition directors, principals, teachers, and parents, additional training and resources were emphasized as a necessity to aid in attaining school wellness and making local wellness policies successful. The surveys cited that additional staff was the resource most needed in schools in order for the local wellness policies to be fully implemented (Carr et al., 2008). Specifically, the survey respondents emphasized a need for physical education instructors and a nurse in every school (Carr et al., 2008).

The SNA (2007) uncovered a need for support within the area of nutrition education components of local wellness policies. A self-reported survey indicated that many districts have not implemented the nutrition education components (SNA, 2007). The most frequently implemented goal is the nutrition education guidelines, which have been implemented in 54.2% of schools (SNA, 2007). They also noted that the least likely nutrition education goal to be implemented in local wellness policies was in the area of training (SNA, 2007). A mere 33% of 976 respondents reported that staff training is among their educational policy components (SNA, 2007). These data highlight the need for investigation into how local wellness policies are being carried out in schools.

Story et al. (2009) uncovered a negative aspect to local wellness policies in regards to parameters set by the federal guidelines. The components of the policies contain no minimum national standards (Story et

al., 2009). They cited that the requirements have no parameters in place for nutritional value of competitive foods or for the amount of time dedicated to physical activity (Story et al., 2009). Furthermore, they argued that this has led to weak policies and has resulted in the creation of local wellness polices that vary considerably across the nation (Seo, 2009; Story et al., 2009). Though local wellness policies have helped to improve certain areas of wellness, there are many areas in which the local wellness policies must be updated to be more effective.

The strength of the language used within local wellness polices has also been examined. Metos and Nanney (2007) researched 30 school districts' local wellness policies in Utah. They discovered that 78% of the districts they studied complied with federal guidelines regarding required policy content (Metos & Nanney, 2007). However, the strength of the language within policies varied greatly (Metos & Nanney, 2007; Seo, 2009). The researchers found that the policies are most likely to be mandated by other state laws or board policies that already contained the stronger language (Metos & Nanney, 2007). According to Nanney et al. (2009), the frequency of weak language within the documents suggests that the local wellness policies may not be valuable to the districts writing them.

In addition to the contribution scholars make to the body of literature on the topic, the SNA also examined language used within local wellness policies. The SNA surveyed 976 SNA members at the director level within the United States on a number of topics related to local wellness policies. The

survey consisted of seven sections that included questions related to the language of school districts' policies. The survey responses indicated that approximately half of the districts surveyed had created nutrition standards that are broad or general in nature (SNA, 2007). The other 50% of survey respondents reported having specific and detailed standards within their policies (SNA, 2007). The detailed standards consisted of specifics on the percentage of calories from fat, saturated fat, and sugar that should be in a meal, while the general or broad policies did not contain percentages (SNA, 2007).

### **Policy Mandates and Implementation**

One challenge that educators are all too familiar with deals with policy implementation. Simply stated, localized implementation is difficult (Reimer, Reiser, Spillane, 2002). Reimer, Reiser, and Spillane (2002) concluded that a key dimension of the implementation process pertained to if and how agents involved in the implementation process came to understand their practice. Furthermore, it was not uncommon for states and districts to embark upon many reform initiatives simultaneously (Hatch, 2001). One of the outcomes that I hope to accomplish with my research is to develop an understanding of the extent that key personnel understand their local wellness policies and the notion of wellness within their schools. I also explored how they are implementing the mandates, and will discuss this further in Chapter 5.



## **Research Gap**

A gap in the research exists because there has been little to no examination of the knowledge that relevant school officials have about the mandated local wellness policies. This research study intended to examine whether or to what extent local wellness policies meet the federal guidelines. The examination was conducted by first ascertaining the understandings of wellness and wellness policies held by key personnel charged with the policies' implementation. Secondly, the study inquired into whether and how the policies have changed school meals in selected Arizona schools.

## **Summary and Contribution of the Present Study**

The rate of childhood obesity is on the rise, along with weight-related ailments. Heightened awareness of children's health and wellness has resulted in the creation of The Child Nutrition and WIC Reauthorization Act of 2004 and has required local education agencies to develop, implement, and monitor a wellness policy. The development of these policies has aided in scrutinizing and evaluating school meals and other health related facets of the school system. Researchers have also begun to study local school wellness policies and the degree that they are being articulated and carried out in schools. This study contributes fresh data to this body of research by providing alternative perspectives to the literature and policy practice in this area.

## Chapter 3

### **Methodology**

This chapter provides an explanation of the methodology that was used in this study. Aspects of the methodology include an overview of the research design, site and personnel selection, data collection, and analysis strategies. In addition, the chapter highlights and discusses researcher bias and possible limitations and benefits of the study.

#### **Research Design**

This mixed-method research study had a strong qualitative component and examined the implementation that local wellness policies have had in two school districts in a metropolitan area in Arizona. A qualitative design was selected as the main source of data generation for the study because it allowed for the exploration of the “how and the what” of policy implementation. The qualitative design was also selected because it allowed the study topic to be approached in a detailed manner and it provided the ability to garner in-depth information on policy implementation in the two school districts that are the focus of this study. According to Rossman and Rallis (2003), the ultimate purpose of qualitative research is learning. The information learned through qualitative research should then have the goal of improving some social circumstance (Rossman & Rallis, 2003). It is hoped that the data collected in this study will add to the body of knowledge on local wellness polices, which will then assist school personnel and policy makers when making decision regarding wellness in schools.

Within this overarching qualitative design, the study included a combination of data collection methods. Document analysis, including a rubric-based evaluation, and in-depth interviews were conducted. Documents relevant to the Child Nutrition and WIC Reauthorization Act of 2004 were examined, local school wellness policies were reviewed, school menus were collected and analyzed, and standardized, open-ended interviews with four key personnel from two metropolitan school districts within Arizona were conducted. These methods are explained in greater detail in the sections that follow.

### **Site and Participant Selection**

The two school districts included in this study are Clearwater Elementary School District and Kino Elementary School District (both pseudonyms). They were chosen because they vary geographically within a metropolitan area, and also because they are both faced with implementing local wellness policies. The Clearwater School District is located in a large, urban area within Arizona. The demographics of students under the age of 18 within the Clearwater School District are as follows: approximately 71% of the population is Hispanic, 29.3% is not Hispanic or Latino, 27.3% of the population is of one race, 17.5% are White alone, 7.6% are Black or African alone, 1.2% are Native American or Alaska Natives alone, 0.8% are Asian alone, and 2% of the population is of two or more races (School District Demographics System, 2010). In the school district, 91% of students receive

free and reduced lunch, which is a fairly large number in comparison to other districts.

The Kino Elementary School District is also located in an urban area in Arizona, although its geographical location differs from Clearwater Elementary School District. The demographics of the population under the age of 18 within this school district are as follows: approximately 79.2% of the student population is Hispanic, 20.8% is not Hispanic or Latino, 19.6% of the under 18 population is of one race, 10.9% is White alone, 6.1% is Black or African alone, 1.9% is Native American or Alaska Natives alone, 0.53% is Asian alone, and 1.2% of the population is two or more races (School District Demographics System, 2010). The percentage of students who qualify for free and reduced lunch is 81.5% within this school district (School District Demographics System, 2010).

The personnel interviews were conducted with the Food Service Director, District Superintendent, Cafeteria Manager, and Principal of each school district. The participants selected for the study are key stakeholders in the area of school wellness and policy implementation, according to Rossman and Rallis (2003). Each participant is an influential, prominent, and well-informed person in the chosen school and was selected based on his or her key informant position in relation to the research (Rossman & Rallis, 2003). The interviewees' positions within the school setting allow them to possess valuable information and insight on the research topic (Rossman &

Rallis, 2003). Please see Table 1 for a summary of each interviewee’s position within his or her school district.

Table 1

*Interviewee’s Information*

	Pseudonym	District Position	Time In Current Position
Clearwater Elementary	Patricia Peterson	School Principal	4 years
	Kelly Martin	Cafeteria Manager	23 years
	Ramona Shepard	Food Services Director	11 years
Kino Elementary	Anthony Lugo	Superintendent	2 months
	Heidi Wagner	School Principal	2 years
	Valeria Garcia	Child Nutrition Cafeteria Manager	28 years
	Natalie Wilson	Director of Child Nutrition	5 years
	Rebecca Cooper	Superintendent	3.5 years

**Data Collection Procedures**

**Document analysis.** The local wellness policies examined in this study were scrutinized in two ways. First, they were examined via a rubric. The rubric contains the five components required by the Child Nutrition and WIC Reauthorization Act of 2004 (see Appendix B). Local school wellness policies received points based on how many of the required components were included in the plan.

Table 2

*School District Demographics System—Race and Ethnicity Profile Comparison*

	Clearwater Elementary		Kino Elementary	
	Number	Percentage	Number	Percentage
Total Population Under 18	40,973	37.3	19,687	30.7
Hispanic or Latino	28,984	70.7	15,591	79.2
Non Hispanic or Latino	11,989	29.3	4,096	20.8
Population of one race	11,182	27.3	3,860	19.6
White alone	7,179	17.5	2,154	10.9
Black or African American alone	3,100	7.6	1207	6.1
American Indian or Alaska Native alone	496	1.2	368	1.9
Asian alone	324	0.8	105	.53
Native Hawaiian or other Pacific Islander alone	29	0.1	10	0.05
Some other race alone	54	0.1	16	0.08
Population of two or more races	807	2	236	1.2
Free and Reduced Lunch		91.1		81.5

*Note.* Adapted from Arizona Department of Education: Percentage of Free and Reduced Repots, National Center for Educational Statistics: School District Demographics Systems.

School menus were also inspected. During the interviews, the participants were asked to analyze school menus and highlight the changes that occurred after the implementation of the local wellness policy. The analysis of the menus allowed for an assessment of the impact the school wellness policies have had on contents of school meals. Specific nutritional differences in the menus were scrutinized. The analysis also looked for evidence that nutritional guidelines have been adjusted in the menus.

**Interview procedure.** The questions used during the interviews were framed to help uncover specific information and to allow for participant reflection on the topics of wellness and nutrition. The questions were created to discover how local wellness policy is understood and how effectively it is adhered to by those charged with its implementation. Standardized, open-ended questions were used during the interview process. The interview questions are considered standardized because they are a fixed set of questions that were asked to each interviewee in a particular order (Rossman & Rallis, 2003). By asking open-ended questions, the participants were given an opportunity to fully explain their opinions and views on the topic.

Some of the questions were tightly preconfigured and did not require reflection on personal thoughts. The questions only required reflection on methods used to meet the requirements of the Child Nutrition and WIC Reauthorization Act of 2004. These questions were given to participants prior to the interviews, so they could prescreen the questions. This allowed participants to begin to process their answers ahead of time and provide more thorough, thoughtful answers.

The interview questions also contain standardized open-ended questions that allowed for an in-depth probe of participants' experiences with understandings of the wellness policies, as well as participant reflection on those understandings and the policies' implementation. These open-ended questions were used to help uncover the participants' perspectives on

wellness within their school district. This method was used based on the assumption within qualitative research that participants' perspectives on the topic of interest should unfold, and the interviewer's role is to capture the unfolding (Rossman & Rallis, 2003).

All of the questions asked in the latter part of the interview were open-ended. Open-ended questions are questions that allow for the establishment of the territory to be explored while allowing the participant to take any direction he or she wants with their responses (Seidman, 2006). Open-ended questions were used to allow the participants to reconstruct their experience according to their own sense of what is important (Seidman, 2006).

The interview questions were posed in a way that allowed for follow-up responses. Although the questions were structured, the interviewer reserved the right to ask follow-up questions when the participant seemed to misinterpret the question, or when their answer involved something that warranted further explanation. For example, some questions were followed by a request for elaboration. These elaborations were then used during the evaluation of the interview data to provide a more descriptive database.

The procedure for the in-depth, standardized interviews followed a modified version of Seidman's (2006) three-part interview sequence and Rossman and Rallis' (2003) approach and procedures for conducting interviews. Each interview consisted of three sections (Rossman & Rallis, 2003; Seidman, 2006). The interviews were planned as 45- to 60-minute



sessions. Each interview was recorded with an iPhone with an internal microphone (see Appendix C for interview schedule.) The questions also elicited concrete details of wellness policy implementation and participants' reflections on how the policy has worked in practice.

The aim of these interviews was to gain perspective on participants' experiences and understandings of wellness in correspondence to Part 1 of Seidman's sequence. The first section of the interviews was the introduction. This section centered on the context of the participants' experiences. The interviewees were asked to describe their backgrounds in regards to schooling, and experiences related to the school meals. The second portion of the interview was the main body of the interview—what Seidman (2006) called “details of experience” (p. 18). In this section, questions related to childhood obesity and the implementation of school wellness policies within their district were asked. Finally, the last portion of the interview was a summary and closure of the interview. It allowed participants to reflect on the implementation of local wellness polices within their school districts (see Appendix D for interview questions).

The interview method was chosen as part of the data collection due to its ability produce answers that paint detailed pictures of situations. The interview process allows for understanding of actions and for the generation of rich descriptive data (Rossman & Rallis, 2003; Seidman, 2006). Interviews also allow for a glimpse into the participants' worlds (Rossman & Rallis, 2003). According to Seidman (2006), a great deal of research is done on

schooling in the United States, yet few studies focus on the perspectives of individuals whose collective experiences constitute schooling. Thus, it is hoped that interviewing district personnel helped develop an understanding of key personnel's perspectives and competency of their district's local wellness policies. Ultimately, the information will lead to the discovery of what the participants' understandings of wellness are and what wellness means in their school districts.

### **Data Analysis**

The analysis of the collected data was a three-part process. First, data were collected and tabulated using the rubric to evaluate the school districts' local wellness policies. Next, the information collected about the changes in school meals was examined, and the interviews were transcribed to allow for analysis of the information. The transcribed interviews were then cross-referenced with the notes and verified for accuracy. The transcriptions were reviewed for themes by first deriving codes or minimal units of analysis, and then categorizing those units into larger patterns that emerged from the data (Rossman & Rallis, 2003). The categories then became the basis for deriving themes. The interview themes were compared among all participants' interviews within the same district, and then across districts. The data was then analyzed to answer the following questions: What common experiences are evident? What differences exist between interviewee experiences and understandings of the wellness polices? The information gathered will be presented as a third-person narrative.

Interview data and document analysis were triangulated in a variety of ways that yielded information. The method of triangulation is one in which a variety of data sources are used in one study. In this study, information was triangulated between key personnel within and outside of the same school districts. The triangulation method was used to establish converging lines of evidence in order to make the findings as robust as possible (Green, Camilli, & Elmore, 2006). The results of the triangulation were then cross-referenced with analysis of the individual school policies, menus, and other documentation and data.

All of the information gathered was examined to assess the nature of the implementation of the policy. Analysis and interpretation was constructed on the participants' understandings of the policies, the concept of wellness, and how the policy is being implemented. Implications for further research, policy, and practice were also explored. The information gathered by this study is intended to help school districts in creating more effective wellness policies.

### **Researcher Bias**

A challenge that I faced when analyzing this data was my bias regarding this topic. I am an advocate for teaching students about health and wellness. I am a nationally certified group fitness instructor and am very aware of the issues that pertain to lack of health consciousness and fitness. I am also employed within one of the school districts where I conducted research. My opinions on the topics may lead to a skewed perspective.

However, I believe I was able to stay cognizant of my own bias, and made all attempts possible to be an objective and impartial researcher. I also believe that my working relationship with the individuals from my own school district helped to create an environment of trust during the interviews, which hopefully led to honest and non-scripted responses to questions.

### **Limitations and Potential Benefits of the Study**

A study such as this is not conducted without limitations and benefits. The limitations of this study were related to time and relationships. I feel that adequate time was allotted for the interview process; however, it is always difficult to capture a full picture of situations in a specified amount of time. This is why school menus and local wellness plans were evaluated in addition to the interviews: their review helped to increase the perspectives on the situation. The working relationships that I have with the members of my school district may have also been a limitation. Interviewees may have been reluctant to share information with me. However, as previously mentioned, I believe that my working relationship with the individuals from my own school district helped to create an environment of trust during the interviews.

The possible benefits of this study will be accessible to the educational community, including kindergarten through high school and through post-secondary education. The implications of this research study may include the discovery of a method that would assist schools and districts in creating a positive environment related to health and wellness in an educational

setting. Also, the study found approaches to creating healthier school meals.

Overall, the techniques revealed during this research study can be used as catalysts for improving wellness in schools.

### **Timetable**

The following is a timetable of the events that took place within this research study:

- September 2010 Survey and interview questions written
- November 2010 Comprehensive exam and proposal submitted to committee; dissertation proposal defense
- November 2010 Completion of IRB application and submission to IRB
- November 2010 IRB approval received
- November/December 2010 Interviews conducted and transcribed
- January 2011 Drafts of Chapters 4-5 to co-chairs; begin “fine tuning” of Chapters 1-3
- January 2011 revisions
- February 2011 Revisions to co-chairs
- March 2011 Graduation application
- March 1, 2011 Dissertation to committee
- April 2011 Defense
- April/May Submit final revisions format approval
- April/May 2011 Submit forms and dissertation for binding
- May 2011 Graduation

### **Summary**

The impact that the Child Nutrition and WIC Reauthorization Act of 2004 has had on school meals has been examined using three different methods. First, a rubric was used to examine the actual wellness policies written by school districts. Next, semi-structured, open-ended interviews were conducted with key school district personnel in charge of school meals and policy implementation. Finally, comparisons were made between breakfast and lunch menus pre- and post-policy implementation. It is hoped

that these three methods will contribute to the creation of a broader picture of how the Child Nutrition Reauthorization and WIC Act of 2004 is being carried out in Arizona school districts, how implementation of policies can be more effective, and how overall wellness can be improved.

## Chapter 4

### **Research Findings**

Details regarding the research design of the current study were provided in the previous chapters. The data generated from the research that was conducted will be presented in this chapter. First, the quantitative data generated through the analysis of local wellness policies will be featured. Then, the qualitative research collected by way of interviews will be presented in a third-person narrative format.

#### **Part 1: Quantitative Results from Rubric of Wellness Plans**

Local wellness policies for 20 school districts within the metropolitan area of Phoenix were evaluated. The Child Nutrition and WIC Reauthorization Act of 2004 (see Appendix A) section 204 of Public Law 108-265 states that by the first day of the 2006 school year beginning after June 30, 2006, all schools participating in a program authorized by the Richard B. Russell National School Lunch Act or the Child Nutrition Act of 1966 must develop and begin implementing a local wellness policy. These policies must follow five guidelines stipulated in the Child Nutrition and WIC Reauthorization Act, 2004. The guidelines are as follows: the policy must include goals for nutrition education, physical activity, and other activities at the school level that promote student health and wellness; the wellness policy must include nutrition guidelines selected by the local educational agency for all foods that are available at each campus during the school day; the policy must assure that the guidelines for reimbursable school meals will

not be less restrictive than the guidelines set forth by the Secretary of Agriculture's subsections (a) and (b) of section 10 of the Child Nutrition Act (42 U.S.C. 1779) and section 9(f)(1) and 17(a) of the Richard B Russell National School Lunch Act (42 U.S.C. 1758 (f)(1), 1766(a)); the schools must enact a plan for measuring the implementation of the local wellness policy; and parents, students, and school food authority representatives, school administrators, the school board, and the public must contribute to the development of the school wellness policy. The 20 policies were evaluated to discover to what extent the local wellness policy meets the requirements that were set forth.

The local wellness policies for each district were accessed online on the Arizona School Board Association (ASBA) website. The policies were found under the school district policy manuals section and free public access subsection. The policies were scored using a rubric that utilized a Likert scale for scoring. The Likert scores correspond with the numbers 1 through 5 as follows: 1 indicates the requirement was not mentioned in the policy; 2 indicates the requirement is briefly mentioned with no details; 3 represents that the requirement is mentioned with a few details about how plan will be carried out; 4 signifies that the requirement is mentioned and a plan for execution of the requirement is mentioned; and 5 displays that the requirement is mentioned and a detailed plan for execution and evaluation of the requirement is described (see Appendix D).



The school district policies were randomly chosen for evaluation from school districts that are geographically located within the greater metropolitan area of Phoenix, Arizona. Twenty-one policies were searched. Two of the school districts' whose policies were searched for were not available via the ASBA website. The policy for the Kino Elementary School District, one of the districts in which qualitative research was conducted, could not be located through the website. This policy was obtained through direct contact with the school district. It was discovered that the other school district whose policy could not be found does not utilize the ASBA's services, and the school was not included in the study.

The maximum total score that a school district could receive on the rubric is 25. Five of the school districts evaluated received over 19 points based on the rubric. Those five school districts are considered to have exceeded the expectations of this study because they scored at 75% or above. Ten of the school districts evaluated received a score of 18 points. These 10 school districts are considered to have met the expectations because their score was a 72%. Three of the school districts scored 15 points or fewer based on the rubric. These three districts are considered to have not meet the expectations because they scored a 60% or below.

Mean scores were calculated for each of the five guidelines. Guideline E had the lowest mean score with 2.45 points. Guideline E refers to whether or not there is evidence that parents, students, school food authority representatives, school administrators, the school board, and the public

Table 3

*Local Wellness Policy Rubric Analysis*

School District <sup>b</sup>	Guidelines <sup>a</sup>					Total out of 25
	A	B	C	D	E	
	Goals	Nutrition Guidelines	Guidelines of Meals	Measurement	Policy Creation	
1	4	4	4	4	2	18
2	4	4	4	5	5	22
3	3	4	4	3	1	15
4	4	4	4	5	5	22
5	4	4	4	5	5	22
6	4	5	5	4	3	21
7	4	4	4	4	2	18
8	4	4	4	4	2	18
9	4	4	4	4	2	18
10	4	4	4	4	2	18
11	4	4	4	4	2	18
12	4	4	4	4	2	18
13	4	4	4	4	2	18
14	4	4	4	4	2	18
15	4	5	4	5	4	22
16	4	4	4	4	2	18
17	2	2	2	3	1	10
18	2	2	2	3	1	10
19	4	4	4	4	2	18
20	4	4	4	4	2	18
Mean	3.75	3.9	3.85	4.05	2.45	

*Note.* A = Includes goals for nutrition education, physical activity, and other activities at the school level that promote student health and wellness. B = Includes nutrition guidelines selected by the local educational agency for all foods that are available at each campus during the school day. C = Guidelines for reimbursable school meals are not less restrictive than the guidelines set forth by the Secretary of Agriculture’s subsections (a) and (b) of section 10 of the Child Nutrition Act (42 U.S.C. 1779) and section 9(f)(1) and 17(a) of the Richard B Russell National School Lunch Act (42 U.S.C. 1758 (f)(1), 1766(a)). D = A plan for measuring the implementation of the local wellness policy is put in place, including designating one or more people from the local educational agency to ensure that the schools meet the local wellness policy. E = Evidence that parents, students, and school food authority representatives, school administrators, the school board, and the public contributed to the development of the school wellness policy. Likert scale key is as follows: 1 = The requirement is not mentioned in the policy. 2 = The requirement is briefly mentioned with no details. 3 = The requirement is mentioned with a few details about how plan will be carried out. 4 = The requirement is mentioned and a plan for execution of the requirement is mentioned. 5 = The requirement is mentioned and a detailed plan for execution and evaluation of the requirement is described.

<sup>a</sup>Guidelines correspond with Rubric for local wellness policy and are based on a 5-point scale. <sup>b</sup> School districts were chosen at random.

contributed to the development of the school wellness policy. The highest mean score was guideline D, indicating that a plan for measuring the implementation of the local wellness policy was written into the local wellness policy. Satisfying this requirement includes designating one or more people from the local educational agency to ensure that the schools meet the local wellness policy. The variety of wording within the Local wellness policies will be discussed in the following chapter.

## **Part 2: Qualitative Data and Narratives Created from Interviews**

The interviews with school personnel will be presented in this section. The interviews were conducted with key stakeholders in the area of school wellness in each district. Food service directors, district superintendents, cafeteria managers, and principals of each school district were interview subjects (refer to Table 1 for interviewee information). Third-person narratives were created from the interviews by transcribing the digitally recorded interviews and rearranging them in a manner that would create a flowing narrative of their interview answers. Pseudonyms are used for any names and identifying information.

The third-person narratives begin with a discussion of the participants' background information, then move to the details of their experience with their local wellness policy and school meals, and conclude with a reflection on policy implementation. The background sections for each interviewee will report information including the interviewee's position within the district and educational background. Each section will discuss

their knowledge of statistics related to obesity, their childhood activity, childhood meals, experience with school meals, and if they notice a difference in current school meals. Their definition of wellness and how that definition of wellness fits into today's school environment will also be reported.

The details of participants' experience with local wellness policies and school meals will constitute the next section of reported information. The interviewee's understanding of their school's policies will be reported in this section. Knowledge of how practices have changed due to the policy and the changes in school meals will be discussed. Also, discussions on how school meals are prepared, what the guidelines are in the creation of school meals, how the policies are measured, and who created the policy will be reported.

The final section of the reported findings will be a reflection portion on policy implementation. Both positive and negative parent reactions will be reported. Also, interviewees will describe positive and negative student reactions. Ideas for future policy development and how the concept of wellness has been alerted in the district will then be divulged.

The interviews will be presented in the following order: Clearwater Elementary School District (CESD) Principal, Kino Elementary School District (KESD) Principal, CESD Cafeteria Manager, KESD Child Nutrition Cafeteria Manager, CESD Director of Food Services, KESD Director of Child Nutrition, CESD Superintendent, and KESD Superintendent.

## **Clearwater Elementary School District Principal, Patricia**

### **Peterson**

The following section will report the information collected from the interview with Patricia Peterson on December 3, 2010. At the time of the interview, Ms. Peterson had been a school principal in CESD for four years. Her school serves students from kindergarten through fifth grade. Prior to taking on the role of principal, she was an assistant principal for seven years, three of which were in CESD and four of which were out of state. Ms. Peterson has a teaching background that spans 16 years. She has taught Physical Education, Health, and some Reading courses.

***Background information.*** Ms. Peterson holds several degrees pertaining to her employment. She holds a high school diploma from a high school located in the Midwest portion of the United States. She also attended college in the Midwest, obtaining a bachelor's of science in education, a master's degree in Secondary Education, and a master's degree in Educational Leadership.

Ms. Peterson was asked about her knowledge of the statistics relating to childhood obesity. Ms. Peterson's replied, "I can not give you numbers, but I do know that there is a large concern, especially in the United States." She also stated that children are becoming obese at younger and younger ages. She thought that the "increase of childhood obesity is related to fast food, and related to the way students eat."

Ms. Peterson had a physically active childhood. She mentioned playing outside often. She enjoyed riding her bike and running. Ms. Peterson played volleyball, basketball, summer softball, tennis, golf, and was a member of the track team. She also mentioned that she loved to lift weights, and that everyday in the summer they would play basketball in the driveway.

Balanced family meals were also part of Peterson's childhood. She remarked that they ate all of their meals at home, and she described how her stay-at-home mom prepared every meal: "We always had the meat, the fruit, the vegetable, so that was very consistent." Fast food dining was not the norm during her childhood, and Ms. Peterson shared that "going to McDonald's was a huge ordeal, and a huge excitement if we ever got to go."

Ms. Peterson ate school meals on a regular basis during her childhood. She recalled the meals being mostly hot meals that she did not mind eating. When Ms. Peterson reminisced about school food she recalled eating hamburgers, hot dogs, pizza, spaghetti, and mashed potatoes. Ms. Peterson also recalled that there "might have been some type of a country fried steak or something like that (and) of course that was probably not very good for us."

When asked to reflect on the difference between school meals when she was a child and school meals of the current day, Ms. Peterson was aware that there have been some modifications to school meals. The differences that Ms. Peterson observed are not necessarily in the items being offered, but in the awareness of the contents served to students. She also noticed an

awareness of the dietary needs of children developmentally. She explained that “it seems like as I become an adult and involved in schools, that there is a lot more attention placed on what are we serving in schools and to our kids.”

Ms. Peterson described wellness as an integral part that contributes to the whole picture of a person. She illustrated wellness as being healthy in all areas of your life including, “physically, mentally, emotionally and taking care of yourself through exercise, what you eat, stress levels and just taking care of your whole self all the way around.”

Ms. Peterson believed that schools are instrumental in the concept of wellness for students. Based on her experience, she felt that schools work hard in all areas of wellness. This notion is a product of her feelings that schools were trying to work with every child, where they are, and as a whole child. She feels the considerations that schools have for students’ wellness is evident in the concerns they hold for each student. Ms. Peterson mentioned the concerns that schools have for students related to whether students are not eating, if they don’t have food at home, if they are overweight, and if they don’t look kept up and clean. To assist in the development of a student’s wellness, Ms. Peterson felt that schools work with students to “provide them the best education and try to give them strategies as far as how to do the best they can without stressing themselves out.” Ms. Peterson stated that it is part of the job as an educator to educate the whole child as best we can.

***Details of experience with wellness policies.*** This section will discuss the details of Ms. Peterson’s experience with her district’s local wellness

policy. Ms. Peterson did not have a clear awareness of exactly what the Child Nutrition and WIC Reauthorization Act of 2004 is. She was unable to put a name to the act, but was aware of some of its implications. For example, she explained: “I can tell you that I don’t know about that act . . . I don’t think.” She realized that changes were made regarding wellness in schools since she arrived in Arizona in the year 2004.

Ms. Peterson recalled that the topic of food in schools became a more focused and serious regulation. Although she did not recall a timeline, she did remember being required to enact regulations pertaining to food items: “I can't give you exact times but I can tell you that there was a lot of conversations and we met with our food services department.” Ms. Peterson also mentioned that the food services department aided both her and the district in understanding specific guidelines and regulations that they had to follow within food services and also in what food was being brought from home.

When asked what the school district’s local wellness policy is, Ms. Peterson was unable to provide a specific response. Her response was:

I cannot tell you what [the local wellness policy] is specifically, but I do know that the well-being and the well-roundedness of taking care of our kids within the school community is important, which is part of our mission and vision statement.

Although Ms. Peterson was not aware of the policy itself, she was able to discuss changes that she has experienced relating to wellness since 2006



when the policy was implemented. Such changes included alterations to activities at Ms. Peterson's school. She mentioned that her school had begun a walking club where children earn Toe Tokens for the completion of a certain number of miles walked. Ms. Peterson said participation in this program is high among the students. While I was visiting her school I observed several students wearing the Toe Tokens around their necks.

A running club was another extracurricular activity that had been available to students at her school in the past. The running club would train at lunchtime or after school. Then, they would enter road races on the weekends. However, due to time constraints, the teacher is no longer able to facilitate the club for the students.

Ms. Peterson was also able to discuss alterations made to school meals and food offered on school grounds. Ms. Peterson mentioned that salad bars at her school, and within the district, have been a newer initiative. She explained that "Schools were asked to take them on as a trial-type basis to provide feedback and see how they worked." She remembered that she and the students were thrilled with the addition of the salad bar.

She also recalled that serving sizes, the food preparation, and components on school trays have become topics of concern. The exact serving sizes of food included in meals were monitored after the policy had been implemented. Ms. Peterson was sure that this change was made in order to help the schools follow the dietary guidelines. She went on to elaborate: "What we don't realize is maybe they can not exceed 2 ounces of

something. So it looks like not very much but then again it's because of the guidelines that have been put into place.”

The method of cooking was also a new point of interest. Peterson noted that food items are now baked. This differed from the previous method of frying food in school cafeterias. She mentioned that even the chips offered at schools now are of the baked variety.

Students must also have a balanced meal on their trays, Ms. Peterson stated. If a student tried to exit the lunch line without all of the proper components on their plates, they would be sent back. Ms. Peterson pointed out that students did not get to pick and choose what they eat. They must have meat, juice or fruit, vegetables, and the main meal on their tray. As for enforcing the rules, according to Ms. Peterson, “We are all trying to monitor [what they eat].”

The types of snacks served and sold at school have changed as well, according to Ms. Peterson. In the past, Ms. Peterson stated, schools sold soft-served ice cream after lunch. She describes that “it was a separate thing and they would sell it up on the stage.” Peterson also added that there was not as much junk food. She stated that the cafeteria no longer sold chips, french fries, or lots of desserts and “you’ll see more of a fruit rollup or fruits as the desert, versus a cookie or a brownie.”

Ms. Peterson cited specific changes made to lunch menus during the interview. For the purposes of the study, she was presented with school menus and asked to circle any items that have changed since the Child

Nutrition and WIC Reauthorization Act had been enacted in 2006.

Immediately she circled the nutrition facts that are printed on the menus, and mentioned that the facts were new to the menus. As she continued to explore the menu and search for changes, she made several comments relating to not knowing much about the changes to the school menus. In one comment, she confessed:

You know I will just have to be honest—I do not eat school lunch. I have not had a school lunch since probably 25 years and I don't pay much attention. You know, I glance at it, but I don't pay much attention to the menus.

One thing that Ms. Peterson did think had changed was the variety of milk being offered. She circled chocolate and strawberry milk and mentioned that the variety of milk choices were key in the change.

Ms. Peterson then proceeded to notice a few more items that she considered to be changes. She circled oven-fried chicken, fajita wraps, tropical fruit salad, sweet potatoes, kiwi fruit, and orange rice. “They wouldn’t have had those,” she stated after circling fajita wraps.

The method of food preparation was also discussed with Ms. Peterson. She was asked how the meals in her school district were prepared. Her response was that the middle schools within the district have kitchens, and those middle schools prepare most of the food and deliver it to elementary schools. Ms. Peterson explained that there was not much preparation and they just had to keep the food warm or mix a few things together. It was also

mentioned that breakfast was probably cooked at each school site. She further explained, "I don't believe they are delivering breakfast. I only see the truck once, so I'm pretty sure."

Ms. Peterson was also asked about what guidelines are used to aid in the creation of schools meals. Her response was that state nutritional standards were used. She added that she was unsure of exactly what guidelines they were using prior to 2006.

Ms. Peterson was questioned on who the committee members were that created the district's local wellness policy. Ms. Peterson thought that it might have been a committee that consisted of the Food Services Director, someone in the financial area, teachers that are involved in teaching wellness, community members, and possibly students. Ms. Peterson admitted that she was not 100% positive on the committee members, but she stated that in any committee configuration they strive to include a variety of people that are informed on the topic at hand.

Ms. Peterson was asked how the CESD measures its local wellness policy. She responded, "Well, I don't know how they measure it, but I do know that they do have to have something for the accountability piece." Ms. Peterson then added that CSED is a Title I school district so there is accountability. She said: "I do know that there are goals and they have to have a way of evaluating and assessing the success of what's out there. I just don't know what it is."

Ms. Peterson was then asked if she was aware of the individual who

was in charge of the local wellness policy evaluation. She stated that they had an assistant director that oversees the special areas, and that physical education and health is one of the special areas. She thought that the assistant director may be in charge of measurement, but she was not positive.

***Reflection on policy implementation.*** Ms. Peterson was asked to reflect on the changes that she has noticed due to the Child Nutrition and WIC Reauthorization Act of 2004. She was also asked to contemplate the reactions that parents and students have had to the changes. Ms. Peterson acknowledged the reactions that parents have had to the changes. She noted that parents are overall pleased with the changes to school meals. She felt that parents were glad that an emphasis was being placed on what the school is serving and the quality of what it is serving. She went on to say that food service received the most comments and feedback on any survey that the parents replied to. To the best of her recollection, “the addition of salad bars and variety have been the positive comments.” Ms. Peterson has not noticed any negative comments relating to school meals from parents. She remembered a lack of comments, explaining “no one commented when the baked goods went away or the ice cream, those things were just a non-issue.”

Student reactions to the changes were also discussed. Ms. Peterson mentioned that the students had positive reactions to the salad bar at lunchtime and the increase in variety of the meals. A negative reaction that Ms. Peterson highlighted was the students’ desire to have sweets and

desserts: “They miss the dessert and they miss the ice cream. Even to this day (two years later) they will ask ‘why don’t we have ice cream anymore?’”

I inquired about her suggestions for changes to the policy. Ms. Peterson mentioned that a change she would like to see involves resources, time, and money. She would like to find the time and money to provide after-school programs that promote wellness and physical activity. Ms. Peterson recalled that a few years ago they offered dance after school and many students were involved. However, the program had to be replaced with different programs because their focus needed to change. More precisely:

Our money needed to be focused towards the academic piece, and it still needs to be focused towards the academic piece however, we are hoping that we can start, even if it's one day a week, a way to bring some of the of the activity and sports type activities back after school as well.

Switching to another aspect of policy implementation, I asked Ms. Peterson if she felt that the concept of wellness had changed within her district post-policy implementation. She felt that the concept of wellness had shifted. Her response was, “Yes I do, I most definitely do.” She stated that everyone is more conscious and pays more attention to what the students are eating and not eating. Ultimately, “I just think we are all much more aware [of wellness] now.”

When asked for her recommendations for further policy development, Ms. Peterson’s suggestion pertained to the physical education aspect of the

policy. Her thoughts were, “there can never be enough physical education.” She stated that she does not hold this opinion just because she was a physical education teacher. She added that she feels strongly that physical education is huge to the academic piece, and is instrumental in keeping the brain active and alert.

**Kino Elementary School District Principal, Heidi Wagner.**

The following section will report the information collected from an interview with Heidi Wagner that took place on January 6, 2011. When the interview was conducted, Ms. Wagner was a principal within KESD. More specifically, Ms. Wagner was a principal of a public Montessori school within KESD that serves approximately 308 students. The study body at her school included three-year-old preschoolers through eighth grade students.

***Background information.*** Ms. Wagner has been the principal at this school for two years. Wagner holds a Master of Arts in Education with leadership credentials. Ms. Wagner mentioned that her Montessori school is a school of choice. Therefore, she stated, her parents are a little different than your typical public school. Ms. Wagner stated that her parents are, “very unhappy with the child-feeding program.” She stated that her parents are probably seen as a bit radical. “[The parents] would love to follow some of the California schools and go wholly organic and put the kitchens back in schools.” She followed up that statement with, “they don’t like processed foods, they don’t like prepackaged food, and... they’ve [always] hated it.”

She was aware of the concern around childhood obesity. Ms. Wagner stated that she was not exactly sure of the numerical values of childhood obesity. However, she does know that they are “increasing alarmingly.”

Ms. Wagner stated that she had an active childhood. She commented that videogames were non-existent and television was “pretty sketchy at the time.” Most of her time was spent outdoors playing games like tag with the kids on her block. She also mentioned that organized sports were not a popular like they are today. She did not participate in organized sports until high school.

Her childhood meals were described as the “typical 50s family meals.” Ms. Wagner described the food they were served as “what was considered best nutrition for that time.” Ms. Wagner said that they were an “eat-at-home family” and her mother fixed dinner every night. A typical dinner would be meat, a potato, a vegetable, and a dessert. Wagner recalled the vegetables being “leafy greens that were cooked to death” and sometimes they would eat salad. I also asked Ms. Wagner what beverages she drank as a child.

Typical beverages in her house were milk and water. Ms. Wagner said that her father would drink iced tea. However, they never had soda in the house.

Ms. Wagner’s selection of food changed a bit when they moved to a farm in the Midwest during her teenage years. She remembers that fruit was not a typical item in her household until they moved. After the move, they had access to huge gardens and fresh fruits and vegetables. Her family also



began canning fruits and vegetables that they would eat during the winter months.

Ms. Wagner described school meals from her childhood as “great.” She recalled eating a scoop of potatoes, vegetables, and meatloaf. The aspect of the school meals she ate that stood out to her the most is that they were all cooked in the school’s kitchen:

All I can remember is that before this there was meatloaf on the trays with tomato sauce. There were the mashed potatoes, and the vegetables and the meals just seemed homier . . . like something that you would get on your table at home or your grandmothers house.

The biggest difference that Ms. Wagner noticed between her school meals and school meals of today was the cooking method. Wagner recalled that there was a central kitchen in her school’s cafeteria and she elaborated, “I think back when I was in school there was a central kitchen and they were cooking the food.” She also said that the food from when she was a child was “real food.” She described today’s school food as “products” that are typically warmed in kitchens and encased in plastic or aluminum foil. Ms. Wagner said this was a “huge difference” from when she was growing up.

I asked Ms. Wagner to explain her definition of wellness. She defined wellness as “feeling great and having a body that feels great.” She also considered wellness to mean maintaining your ideal weight and eating only what you need. Wagner went on to say, “wellness, to me, is eating a really

nice diet from a farmers' market." She said that this included lots of salads, lots of soups, exercising every day, doing yoga, and feeling strong.

Ms. Wagner was asked how her definition fits into the school environment. Ms. Wagner stated that she hoped she is a role model for her teachers and her students. She said that she encouraged her staff to take care of themselves. Ms. Wagner also stated that she has very few staff absences due to illness. She attributed that to the environment that is created at her school. She said there is a feeling in their school environment that you are what you eat. Wagner stated, "without that attitude, it could not be modeled for students."

Ms. Wagner also stated that wellness is modeled by her teachers during lunchtime. The teachers at her school eat with their students in the classroom as a community. They are not dropped off in the cafeteria to be managed by a teacher or someone in the cafeteria. The students set the tables in their classroom with glass plates, sit down together, and spend time "enjoying their meals." Ms. Wagner mentioned that they only have two classrooms that eat in the cafeteria off of the Styrofoam trays.

***Details of experience with wellness policies.*** This section will discuss the details of Ms. Wagner's experience with her district's local wellness policy. Ms. Wagner is aware that KESD has a local wellness policy. She identified that their policy is a generic act. She said that her district did not particularly write the policy, but the district adopted it instead. Ms. Wagner

mentioned that many Arizona schools adopted this exact policy or one that is similar.

Due to the Child Nutrition and WIC Reauthorization Act of 2004, Ms. Wagner has seen a positive impact in the area of physical education. She stated that she had noticed a shift in the focus in physical education. She felt that this might be a shift in the focus of the university programs as well. Wagner stated that her current physical education teacher is a new graduate of the teaching program, and he focuses on the wellness of students as a whole. She mentioned that the students were involved in project-based learning during their physical education classes. This is in contrast to other, more seasoned, physical education teachers that have a strictly sports-based focus during class. Wagner added, "I think that the act has allowed higher institutions to be able to do things like this and focus on the whole health package for PE teachers."

Wagner also mentioned that the act has changed the serving practices used in the cafeteria. She explained: "I know that there were huge changes [in the cafeteria]." More specifically, she stated that the policy changed the cooking methods in schools. One change she witnessed was a movement from a cafeteria kitchen method. Ms Wagner stated that, in the past, food was being cooked at schools. Currently, the practice of using pre-packaged foods in school cafeterias is the norm.

She also stated that computer systems were now being used to get a dietary assessment of food. Ms. Wagner stated her view of the computer

system is negative. She stated that putting the food into the computer system did allow for the measurement of fat, calories, and sodium in food items. She also felt that it is negative to be able to measure those indicators by an entire week instead of by each individual day. Ms. Wagner referred to the levels of fat, calories, and sodium in school meals as “pretty lethal levels . . . . They are not okay healthy levels, they are the maximum amount of fat that you can give to somebody. So I really think that [the computer measurement system] has been very, very negative.”

Wagner pointed out that the computer system was doing what the USDA had set out for it to do. The system ensured that the nutritional guidelines are met. However, she did not feel that the USDA had considered what kind of food is being served, and she does not feel that we are feeding kids food that is great for brain and body growth. She mentioned that pre-packaged food was being used because it was easier to put into the computer system. She described the guidelines as an “interesting paradox.” Wagner stated, “Yes the kids are getting fed. But, if you are going to feed kids, do it well.... You can do it well. You don’t have to do it with Fruit Loops. Send those to the prisons. Don’t send them here.”

Ms. Wagner also noticed an influx of styrofoam trays post-policy implementation. According to Ms. Wagner, the styrofoam trays were used to help cut costs of using a dishwasher. Ms. Wagner summed up her thoughts by stating: “I’m going to have to say that I think there was a huge correlation

between the way we serve our kids with what we saw in that 2004 Act. It's negative . . . it's incredibly negative."

Ms. Wagner was given a menu that contained breakfast and lunch menus from KESD from November of 2010. She was asked to mark changes that were made to the school meals due to the Child Nutrition and WIC Reauthorization Act of 2004. Ms. Wagner noted changes in the configuration of food. She highlighted items that are now whole-wheat. She circled toasted cheese sandwiches, honey buns, and bagels as now being made with whole-wheat. She stated that they no longer serve white bread in their cafeterias and mentions that this is a "change for the best." She also noted that beef has been substituted on some menu items. Ms. Wagner stated that the hotdogs are now turkey instead of beef. Also, the chili beans are now made with turkey meat instead of beef. She mentioned that they added a chef salad to the menu, which has some "really nice turkey" on top of it.

Wagner mentioned some additions to the menus. She said that a new change was applesauce being offered when pancakes are served. The applesauce was to be used for dipping instead of syrup. Wagner mentioned that she began this at her school when she refused to put syrup out with the pancakes. According to Ms. Wagner, she felt that the syrup had no nutritional value. and that "If they [the students] want something sweet [with their pancakes] they can have apple sauce." She also mentioned that yogurt parfaits with granola, and ranch dressing for dipping vegetables have been added to the menu.

Items that have been removed from the menu were asked about as well. Ms. Wagner stated that the district is no longer serving super doughnuts, which are large glazed doughnuts that are pre-prepackaged. She also mentioned that hard-boiled eggs, omelets, and scrambled eggs had been removed from the menu in the past. However, those items were working their way back onto the menu.

Ms. Wagner was aware of some changes that will be made to school meals in KESD in the future. She stated that sweet potato fries will be included in future menus. She also said that vegetables that can be dipped in hummus would be added to the menu. In addition, Jumpstart breakfasts would be removed from the menu. According to Ms. Wagner, Jumpstart breakfasts are boxed meals that contain Pop-tarts, a sugared beverage, and a package of pear-applesauce.

Ms. Wagner was asked what guidelines are being used in the creation of the configuration of school meals. Her response was the USDA's guidelines.

She was also asked how the policy is being measured, who is in charge of ensuring that it is measured, and who made up the committee that created the local wellness policy. Ms. Wagner responded that she was unsure. Then, she followed up by stating that she imagined the Director of Child Nutrition would be in charge of measurement.

***Reflection on policy implementation.*** Ms. Wagner was asked to reflect on the changes that she has noticed due to the Child Nutrition and WIC Reauthorization Act of 2004. I asked Ms. Wagner about positive

reactions from parents at her school. According to Ms. Wagner, parents have had a positive reaction to the addition of salad bars in the schools. Ms. Wagner described the salad bar as a typical salad bar with fruit on one side and salad items on the opposite side.

Ms. Wagner was asked what negative reactions parents have had to the changes in school meals. Ms. Wagner stated again that her parents are very unhappy with the child-feeding program and the processed foods. She also stated that they wanted to put fully staffed kitchens back in schools because parents hated the prepackaged foods.

Ms. Wagner added that each year they have to ask a district representative to visit their school during site council meetings. According to Ms. Wagner, the parents wanted information about school meals and menus. The parents in her school asked about how menus are created. They also inquired about why their federal dollars are being used on this type of food menu.

I asked Ms. Wagner about the positive reaction that students have had to the changes in school meals. She responded that the students liked the chocolate milk. Students had negative responses to receiving second helpings of food and expiration dates, according to Wagner. She stated that the students disliked the inability to get second servings of the main entrée. She explains that “they will come and complain to me that they didn’t get enough to eat.” Wagner attributes this to portion control. She did acknowledge that

they can go back and get as many fruits and vegetables as they wish, they just cannot go back for the entrée.

She also stated that sometimes the food that Ms. Wagner's school received was close to expiration. Ms. Wagner stated that the students brought items to her and said, "The Teddy Grams I got today expired one week ago." She said that this offended her students.

Ms. Wagner acknowledged that the attitude towards wellness had changed in KESD. She stated that on the faculty level, the district itself had a wellness policy. She mentioned that exercise classes were offered after school. Mammogram tests were also offered to employees. Ms. Wagner said that the district was supporting people being healthy: "Happy people make productive people." She said that this was a dollar thing because it related to the group insurance policy and paying for substitute teachers. However, more than anything, she said it boiled down to what is best for kids, and that is having teachers at work and happy. Ms. Wagner ended her response by saying that she believed doing what is best for kids is at the heart of everything the district does.

I asked Ms. Wagner what suggestions she had for future policy implementation. She suggested the addition and removal of some items from school meals. She suggested including more hard-boiled eggs, nuts, and cheese in the students' diet. She acknowledged that cheese contains fat; however, she also acknowledged that it contains the protein that students need. Ms. Wagner wanted to see the removal of honey buns and toaster



pastries from school meals. She stated, “There’s got to be something besides honey buns that you can give me that has the same [nutritional] amounts. Where’s the protein in there? Did someone inject the protein into the honey bun?”

In terms of changes to policy implementation, Ms. Wagner would also ask for the reinstatement of a general kitchen. Ms. Wagner would like to see school districts have more control of what they are preparing and serving in their schools. She would also like school districts to look at the kinds of foods they are giving the kids in an effort to help meet the food pyramid recommended servings. In addition, she would like the food items to be as whole, and as unprocessed, as they possibly can be.

Ms. Wagner also wanted to see vegetarian options added to school meals. A suggestion that she made was to substitute beef hamburgers with Boca or vegetable burgers. Ms. Wagner stated that she was told that there are no vegetarian items available for schools as of now.

Ms. Wagner closed the interview stating, “I still feel like what we are feeding kids is not the right stuff to feed kids to compete in a world market.” She stated that we should not expect great test scores from students if a student does not feel well and is not been nourished properly.

**Clearwater Elementary School District Cafeteria Manager, Kelly Martin.**

The sections that follow will report the information collected from an interview with Kelly Martin that took place on December 7, 2010. Ms. Martin

worked within the CESD's Food Services Department at the time of the interview. She was a cafeteria manager at a middle school. Her kitchen fed students in the sixth, seventh, and eighth grades. The students at her school were not required to eat a school lunch each day. Students had the option to eat or go to the field area during lunchtime.

***Background information.*** Ms. Martin began her career as a cook in the district 23 years ago. She had worked her way up to her current position. Ms. Martin completed high school and some college. She also obtained a certification in child nutrition through a college in southwestern Arizona.

The statistics related to childhood obesity were discussed with Ms. Martin. She stated that she knows that the statistics are on the rise. Ms. Martin commented on how she has become familiar with the statistics. She stated that evening news and media has helped her become more aware of the increased rate of childhood obesity.

Ms. Martin's experience with wellness and nutrition growing up was influenced by her eating habits. Ms. Martin stated that she is from the "clean-up-your-plate era." She remembered being rewarded with food. She stated that this was not a good thing and commented, "hence the obesity myself."

Ms. Martin did state that the meals her mother cooked were always balanced meals. As she described, "We always had the meat and potatoes, the vegetables, and the bread." The meat they ate included chicken, beef, and liver and onions every Friday. Ms. Martin remembers her mother telling her that the liver and onions were steak in an attempt to get her to eat it. She

recalled: "I did [eat it]. I had to smother it in ketchup even get it down." Ms. Martin also stated that her family never saw fast food or restaurants growing up. They always ate at home.

Ms. Martin's parents were gardeners. This meant that the family ate fresh vegetables and fruits when they were in season and "Fresh squashes, carrots from the ground, and tomatoes off of the vine" were a standard in their household. She remembered having a lot of homemade food as a child, especially baked goods. Baked goods were a standard in their household. According to Ms. Martin, her mother was a baker, so they had cookies, pies, and cakes often. She went on to say: "I do think I probably ate way too much of the sweets, the cakes and cookies and that kind of thing."

School lunches for Ms. Martin were mostly cold meals. During her childhood, she did not eat school lunches. She took her lunch to school. She did not recall consuming hot lunches until high school and "Even in high school it was à la carte stuff. You would buy a sandwich and an apple."

Ms. Martin discussed the changes in school lunches. She has noticed that the district has come a long way. She now observes schools using more fresh foods. A specific change that she has noticed is a move away from canned fruits and vegetables and an increase in the use of fresh fruits and vegetables. She has also noticed more grains being offered and the monitoring of trans fat. Ms. Martin stated that they have no trans fats in their food and that "the district has really made an effort to go with the food guidelines." Ms. Martin further commented that even though the district is

offering more fresh choices, she does not see the students take advantage of the options. For example, “We have to encourage it with them; we really have to push it.” Ms. Martin also said she finds the number of students who do not recognize the fresh fruits being offered surprising. For example, a fresh pear was not familiar to them and “they look at it thinking . . . is that an apple?” Ms. Martin said they know apples, oranges, and bananas, but they have never seen kiwi.

Ms. Martin defined wellness in relation to food and physical activity. She thinks wellness is a balance of a variety of foods in a person’s diet. She also thinks that wellness needs to include exercise, something that was not familiar to her as a child. She recalled: “I wasn’t raised in a house that had a lot of physical activity. That wasn’t anything that was pushed on us.” Although she does think that they played more than the children of today’s generation. She explained that, “You know, we were riding bikes, roller skating, and running in the park. I mean we didn’t sit around and play video games and watch television.” Ms. Martin commented that they did not even own a television growing up.

Wellness, as Ms. Martin defines it, fits into her school district’s environment through the variety of food options, and she explained “I think we are good about offering a variety.” Ms. Martin felt that they do their best with the commodity foods, which are surplus food provided to schools through the USDA, to provide variety for the students. According to Ms. Martin:

We have the opportunity to have some of our ground beef turn into tamales or things like that. So it's not like we serve just the ground beef, we tried to make it into things that we know the kids are going to eat.

***Details of experience with wellness policies.*** The following section will report the details of Ms. Martin's experience with her district's local wellness policy. Ms. Martin was not familiar with the Child Nutrition and WIC Reauthorization Act of 2004, or the requirement to create a local wellness policy because of this act. In her words, "I don't recall something being called local wellness policy. I'm not familiar with that."

She went on to mention that, although she is not sure of the local wellness policy, she is aware of some changes that have taken place since 2006. Within the same time frame as the act, the school district started introducing more fresh produce. She stated that the menu had always included canned fruit before then. Currently, they are offering more fresh fruit and produce, including lettuce and tomatoes. Ms. Martin also said that reducing fats was also a newer innovative. Now, the menus must be "less than 30% fat", she stated.

Ms. Martin discussed changes in policy. One change was the way that menus are created and monitored. Although Ms. Martin was not sure if this change took place because of the policy, she did know that a software system, NutriKids, is used for menu planning. Ms. Martin explained further: "I don't know if that necessarily came through with this local wellness policy or not . . . but, I do know it's been probably four or five years that we have been using

that software for menu planning.”

Ms. Martin continued the discussion by describing how the system worked. She stated that each day the software took the food and created a report of all the content of calories, cholesterol, fiber, protein, carbohydrates, trans fats, and saturated fats. All of the information was broken down so the district knew the percentages that the students were getting daily. Ms. Martin credited the NutriKids system as the most beneficial change that has occurred, because it helped them become more in-tune with nutrition.

Lunch and breakfast menus from CESD were given to Ms. Martin and she was asked to draw attention to items that have changed due to the Child Nutrition and WIC Reauthorization Act of 2004. Martin noted fiber as a main reason for many changes to the menu: “Well, I can see right away the graham crackers, they are put on there for fiber.” According to Ms. Martin, “Fiber is big.” Ms. Martin credited the requirement for increased fiber as a portion of the reason behind the addition of the salad bar. She explained that “part of the reason that they put in a salad bar [is] because we offer more leafy greens.” She also stated that NutriKids helped the district focus on the fiber intake. However, although the items with fiber were offered, Ms. Martin acknowledged that the students were not interested in the fiber rich food selections and that “we have a difficult time finding things with fiber that are going to be stuff that kids are going to take.”

Items have been added to the menu in an effort to get students to eat other food items, Ms. Martin noted. Peanut butter was added when apples

are served to try to increase apple consumption. Sunflower seeds were added to the salad bar in hopes of getting the students to eat from the salad bar more often. The hope was the sunflower seeds would boost the participation in the salad bar, but it has not. Ms. Martin reflected: "It saddens me to say that we put a lot of preparation and a lot of cost into a salad bar every day, you know fresh produce is expensive, and we have very little participation in it." Martin stated that she feeds almost 600 kids per day and she will usually have about six to ten students who choose to eat at the salad bar.

Other items that were added or changed on the menu were fresh items offered through the USDA commodity program. The schools offered steamed broccoli and cauliflower to their students. Ms. Martin explained that "The steamed broccoli is something we would not have seen before, but again we are not serving a lot of that. They don't take it." Ms. Martin stated that the students did not choose those food items to eat.

Fresh grapes and strawberries have also been added to the menu. Ms. Martin noted these additions and went on to say, "The strawberries are a commodity item. Those are offered because we get so many of them through commodity." Carrots and celery sticks were also added to the menu. Martin credited commodity for that change as well. Martin commented that the commodity items were not usually chosen, and explained that, "they don't take that stuff but we can't stop offering it. You know, we have to keep it offering it."

Ms. Martin was also asked about changes in the menu in terms of items that are now excluded from the menu. Ms. Martin noted that sloppy joes were not offered on the menu any longer. The reason she cited for their removal was that the large Hispanic make-up of the district. She explained, “the students didn't eat sloppy joes. They are more familiar with the tacos, the enchilada, the burrito. They love that stuff.” Ms. Martin also acknowledged that turkey chunks, soups, and hamburgers were offered less often. Ms. Martin was then asked if any items had been taken off of the menu because they do not have the correct nutritional value. She responded that the higher fat chips had been removed from the menu because they contained trans fats. Ms. Martin stated that anything that contained trans fat has been removed, such as Little Debbie Cakes. Butter was also noted as an item that was no longer used. Butter was not being used in recipes. As Ms. Martin described, “There's no butter being offered in the vegetables. It had made a difference in the flavors, but now they are tasting like the vegetables, like they are supposed to be.” Despite this change, Ms. Martin had not noticed a change in consumption of vegetables. According to Martin, “the kids have always turned their nose up to the vegetables.” Out of 561 students that she served lunch to the day prior, six students took a serving of mixed vegetables.

Ms. Martin explained the preparation of food within CESD. According to Ms. Martin, base kitchens, which are housed at most middle schools, make a larger supply of scratch food items and then ship the food on a daily basis to the elementary schools. For example, scratch cooking is anything made from



whole ingredients such as spaghetti, rotini, turkey chunks, gravy, chili, and taco meat. Other items such as ranch dressing and salsa may be made at a base kitchen as well. Ms. Martin worked in a base kitchen, although it was not your typical base kitchen. It was considered a base kitchen, but because of budget issues it was not a full-fledged base kitchen. Instead of preparing food for other schools, they were self-sufficient. Her kitchen made all its own food and did not ship any food out to other schools.

Ms. Martin was also asked about which guidelines her school district used in the creation of school meals. Ms. Martin responded that the guideline used is NutriKids along with the food pyramid standards to create school menus. Ms. Martin was then asked who the committee was that created the local wellness policy in her district. Ms. Martin stated that she was not aware if they had a committee to create the local wellness policy. Ms. Martin was then asked how the local wellness policy was measured in CESD. Ms. Martin cited the lead manager at food services as being in charge of measuring the policy.

***Reflection on policy implementation.*** Ms. Martin was asked to reflect on the changes that she noticed due to the Child Nutrition and WIC Reauthorization Act of 2004. According to Martin, the parents had a positive reaction to the salad bar. She felt, from her experience, that a lot of parents were glad that the salad bar is offered for their children, but went on to say, “I think they'd be a little disappointed to know that their children aren't necessarily choosing that, but they are happy to know that it's here for them.”

The negative reactions from parents in regards to the changes to school meals were almost non-existent, according to Ms. Martin. However, she did respond that a small portion of the community would like to see a food management company take over the lunch program. Ms. Martin stated that the community has the idea that a food management company would bring in Taco Bell and Pizza Hut for lunch. Ms. Martin stated that food service companies do not do that and that their menus are similar to what the district is already serving.

Ms. Martin also cited a positive reaction that students have had to changes in school meals. She said they enjoy that they get a treat everyday and she thought that “the kids like the fact that they get a little cookie treat every day, on our menu.” Ms. Martin then went on to say that they offered graham crackers or fruit rollups for a treat. Ms. Martin considered this positive because it was getting students into the cafeteria and might even get them to eat some of the other foods as well.

Ms. Martin felt that the negative reaction that students had were related to the snacks that are offered. The items that were no longer offered disappointed students. Ms. Martin stated that they students were unhappy that Gatorade is no longer being offered. They were also initially disappointed in the offering of the baked chips: “Now they are used to the baked ones, but when we first transitioned to that there was a lot of disappointment in that”.

Ms. Martin was asked if any changes were being planned for school

meals in the future. She was unsure of any future changes to the menu. She felt that the NutriKids system has them at a stable place. However, Ms. Martin did mention that there was some discussion of new legislation. This legislation would allow school districts with certain low economic status, to provide free meals to all students. If this change took place, Ms. Martin felt it would be huge for the district. It would increase the participation in school meal programs.

Ms. Martin was asked to reflect on how the concept of wellness has changed in CESD. She felt that it has improved because people are currently more aware of wellness. They are also more focused on helping our kids become active. Ms. Martin's recommendation for future policy development deals with the policy being grounded in communication and education. She felt that the communication between food services and teachers was lacking. Ms. Martin felt that it would be great if food services could participate in classroom activities. She would like to assist with educating the students on the food pyramid and health and wellness.

Ms. Martin concluded the interview with a statement about the image that the food services department has. She expressed that she was excited about the interview because it brings awareness to what they are trying to do in the food services department. She felt that many people have an outdated mindset and there is a stigma with food services. She believed that many view school lunches as a "slop on the tray kind of thing." Ms. Martin commented that they are working to help people realize that they are not the

“glob of gravy on the tray anymore.” In fact, Ms. Martin stated that they are just the opposite of that by saying that food services is now “fresh fruits and vegetables.”

**Kino Elementary School District Child Nutrition Cafeteria Manager,  
Valerie Garcia.**

This section will report the information collected from an interview conducted on January 10, 2010, with Valerie Garcia. When this interview took place, Ms. Garcia worked as a Child Nutrition Cafeteria Manager in KESD. The school that she worked at served students from kindergarten through sixth grade. She had worked in this capacity for 28 years. Ms. Garcia’s educational background consisted of a high school diploma.

***Background information.*** Ms. Garcia is aware that the statistics related to childhood obesity are increasing. She was not sure of the exact numbers. However, she did share that there were not as many overweight children when she was growing up as there are today.

Ms. Garcia recalled that wellness was a minimal part of her childhood. As she explained, “We didn’t really have too much [information on wellness].” She recalled visiting the doctor when she was sick to receive medication. She also said that they visited the doctor to get shots. Ms. Garcia said this differs from children she saw in her schools, who receive information related to nutrition and how to eat better.

Activity levels during Ms. Garcia’s childhood were discussed. She mentioned that they had Physical Education in school. She also recalled

playing at the park: “We had a park by the house and all of the kids would get together. We would play ball and baseball.” Ms. Garcia also remembered running around often and participating in different physical activities when she was young.

Ms. Garcia remembered her family meals while she was growing up as sit-down meals and “they were nice because everyone sat at the table.” Ms. Garcia said the family meals always consisted of vegetables. In her family, “We didn’t eat meat all of the time, but we had vegetables because we had an uncle who worked on a farm.” She recalled eating verdolagas, a spinach-type green, often. She compared verdolagas to collard greens and said that her mom would boil them. Ms. Garcia also remembered eating potatoes and rice.

Ms. Garcia was questioned about her experience with school meals. Ms. Garcia stated that she attended a Catholic school during her elementary school years. The cafeteria at the Catholic school served milk and she would bring her own sandwiches. Ms. Garcia said she usually brought a tuna sandwich because she loved tuna, and still does.

Once she moved on to junior high, Ms. Garcia began to attend a public school. She remembered the meals at the public school as traditional and “everything was served on your tray. We would have a hot tray and a salad tray.” Ms. Garcia described a normal cafeteria meal consisting of mashed potatoes, a hamburger with gravy served on top, a roll, a salad, fruit, and milk. Ms. Garcia enjoyed eating in the cafeteria and recalled that “[Cafeteria food] was really good. I liked eating in the cafeteria.”

Ms. Garcia was asked to describe the differences between the school meals that she ate and the school meals she saw at her current job. The main difference she noted was the cooking methods. She stated, “Back in the day, everything was cooked and now everything is frozen.” Ms. Garcia said that they did have similar items on the menus. For example, the menu included burritos, hamburgers, hot dogs, turkey, and mashed potatoes. These items were all similar to items they had while she was growing up. However, Ms. Garcia described the food as, “not the same . . . . [Today] our bread [and] everything is bought, and before everything was baked. [Before] it was better, but it had a lot of butter, I’m sure.”

Ms. Garcia was asked to give her definition of wellness. She described wellness as a wellness program. She mentioned that a wellness program includes both physical activity and nutrition. Ms. Garcia felt that her definition of wellness fits into KESD’s environment. She had observed positive behaviors related to wellness. Ms. Garcia particularly felt that the salad bar was in-line with her definition of wellness. She stated that she encouraged students to eat from the salad bar, and most of the students did. Ms. Garcia said that the salad bar was a nice way to get students to eat foods that they might not eat at home.

***Details of experience with wellness policies.*** The following section will review the details of Ms. Garcia’s experience with her district’s local wellness policy. Ms. Garcia’s understanding of the policy will be explored.

Ms. Garcia was not aware of her school district's local wellness policy prior to the scheduling of our interview. She received a copy from her director prior to our interview. She commented that she did not know much about it until she read it, and that she enjoyed reading it. Ms. Garcia was pleased that the policy included goals that referred to students finding safe routes to walk home. She also appreciated the references to the amounts of fruits and vegetables students should eat. She commented that students' eating habits in school would help them learn how to eat during adulthood. She elaborated: "This is good to know, because this is how they learn to eat. This is the beginning because there are little and this is the start." Ms. Garcia stated that she would share this policy with other Child Nutrition Cafeteria Managers in her district. She did not think that other managers were aware of this policy. She said that she received quite a few phone calls from managers. She explained, "I get a lot of managers calling me and saying 'can they eat this in the cafeteria or can they bring this?'"

Ms. Garcia pointed out a few changes in practice that she learned about through reading the policy. She stated that the school district now sends out a newsletter. She also mentioned they had health fairs. In addition, she stated that some of the schools had seventh and eighth grade students create journals about their eating habit. Changes to school meals due to the Child Nutrition and WIC Reauthorization Act were also discussed. The main difference that Ms. Garcia mentioned was an increase of fresh fruits and

vegetables. Ms. Garcia said, “the kids like a lot of fresh fruits, it’s kind of expensive, but they do like it.”

Ms. Garcia was given a copy of a menu from KESD and asked to highlight specific changes that have occurred due to the Child Nutrition and WIC Reauthorization Act of 2004. One of the differences she noted was the switch to whole-wheat bread items. She mentioned that, concurrent to the study, all of the sandwiches were made on whole-wheat bread. Honey buns, dinner rolls, bagels, and hot dog buns were pointed out to be whole-wheat now also. The dessert items had changed as well. Ms. Garcia said the cafeteria used to have cakes, cookies, and freshly made peanut butter bars, but “We don’t have [any] of that anymore... no kinds of sweets.” Garcia added, “once in a while we will have the little teddy grams or a granola bar, but not sweets and cakes or anything.”

The biggest change in the school menu items was the method of cooking, according to Ms. Garcia. Prior to the 2004 when the act was created, Ms. Garcia said that food items were created in their kitchens. However, “the real thing now is that everything is frozen or canned.” Garcia stated that prior to the act, she soaked and cooked beans in a large pot to use in the creation of chili, but “Now we just open a can.” Ms. Garcia was also asked about how food was prepared within KESD. She stated the food came from a central kitchen. The cafeterias received the food the day prior to the day it would be served. It was then frozen or refrigerated until the next day. In essence, “we are just really heating up to temperature and then we will serve it to the students.”



The guidelines used in creation of school meals were inquired about. Ms. Garcia stated that the district is on the NuMenus program. She explained the NuMenus program was a way to select entrées and food items. Ms. Garcia stated that you must choose one main item, sides, and milk. She specified that “they have to have three of the [side] items and they have to have the entrée.” Ms. Garcia was asked if she was aware of how KESD measured their local wellness policy. She responded, “I don’t know.” Ms. Garcia said that she was unaware of how the policy was measured because, until recently, she did not know there was a policy. The person in charge of measuring the policy was also inquired about. Ms. Garcia mentioned that she had spoken with the school nurse about the policy. During that discussion, she discovered that the nurse aided in measuring the policy. Ms. Garcia was also asked who helped create the local wellness policy. Ms. Garcia pointed to the top of the policy. Then she said, “it does say this right here right on the top,” and she named the former superintendent and former business services administrator.

***Reflection on policy implementation.*** The following section will review the details of Ms. Garcia’s experience with her district’s local wellness policy. Ms. Garcia’s understanding of the policy will be explored.

Ms. Garcia was not aware of her school district’s local wellness policy prior to the scheduling of our interview. She received a copy from her director prior to our interview. She commented that she did not know much about it until she read it, and that she enjoyed reading it. Ms. Garcia was pleased that the policy included goals that referred to students finding safe

routes to walk home. She also appreciated the references to the amounts of fruits and vegetables students should eat. She commented that students eating habits in school will help them learn how to eat during adulthood. “This is good to know because this is how they learn to eat. This is the beginning because there are little and this is the start.”

Ms. Garcia stated that she would share this policy with other Child Nutrition Cafeteria Managers in her district. She did not think that other managers were aware of this policy. She said that she receives quite a few phone calls from managers. “I get a lot of managers calling me and saying ‘can they eat this in the cafeteria or can they bring this?’.”

Ms. Garcia pointed out a few changes in practice that she learned about through reading the policy. She stated that the school district now sends out a newsletter. She also mentioned they have health fairs. In addition, she stated that some of the schools have seventh and eight grade students creating journals about their eating habit.

Changes to school meals due to the Child Nutrition and WIC Reauthorization Act were also discussed. The main difference that Ms. Garcia mentioned was the increase of fresh fruits and vegetables. Ms. Garcia said, “the kids like a lot of fresh fruits, it’s kind of expensive, but they do like it.”

Ms. Garcia was given a copy of a menu from the Kino Elementary School District and asked to highlight specific changes that have occurred due to the Child Nutrition and WIC Reauthorization Act of 2004. One of the differences she noted was the switch to whole-wheat bread items. She

mentioned that currently all of the sandwiches are made on whole-wheat bread. Honey buns, dinner rolls, bagels, and hot dog buns were pointed out to be whole-wheat now also.

The dessert items have changed as well. Ms. Garcia said the cafeteria used to have cakes, cookies, and freshly made peanut butter bars. “We don’t have [any] of that anymore... no kinds of sweets.” Garcia added, “once in a while we will have the little teddy grams or a granola bar, but not sweets and cakes or anything.”

The biggest change in the school menu items is the method of cooking, according to Ms. Garcia. Prior to the act, Ms. Garcia said that food items were created in their kitchens. “The real thing now is that everything is frozen or canned.” Garcia stated that prior to the act, she soak and cooked beans in a large pot to use in the creation of chili. “Now we just open a can.”

Ms. Garcia was asked how food is prepared within the Kino Elementary School District. She stated the food comes from central kitchen. The cafeterias receive the food the day prior to the day it will be served. It is then frozen or refrigerated until the next day. “We are just really heating up to temperature and then we will serve it to the students.”

The guidelines used in creation of school meals were inquired about. Ms. Garcia stated that the district is on the NuMenus program. She explained the NuMenus program as a way to select entrées and food items. Ms. Garcia stated that you must choose one main item, sides, and a milk. “They have to have three of the [side] items and they have to have the entrée.”

Ms. Garcia was asked if she was aware of how the Kino Elementary School District measures their Local wellness policy. She responded, "I don't know." Ms. Garcia said that she was unaware of how the policy is measured because until recently, she did not know there was a policy.

The person in charge of measuring the policy was also inquired about. Ms. Garcia mention that she had spoken with the school nurse about the policy. During that discussion she discovered that the nurse aids in measuring the policy.

Ms. Garcia was also asked who helped create the Local wellness policy. Ms. Garcia pointed to the top of the policy. Then she said, "it does say this right here right on the top," and she named the former superintendent and former business services administrator.

**Clearwater Elementary School District Director of Food Services, Ramona Shepard.**

The responses generated during an interview with Ramona Shepard on December 10, 2010, will be reported in the following sections. When the interview was conducted, Ms. Shepard was the Director of Food Services for CESD.

***Background Information.*** Ms. Shepard had been in the position of Director of Food Services for 11 years at the time of the interview. The CESD consisted of 20 schools, all of which contained kitchens that Ms. Shepard was in charge of monitoring. She holds a high school diploma, and also has a certificate from a community college in Food Services Administration.

Ms. Shepard's was asked about her knowledge of the statistics related to childhood obesity. She stated that she was aware of the fact that children were at risk for chronic diseases. She also shared that the children being raised at the current time would not be as healthy as people in the previous generations.

Ms. Shepard credited her experience with wellness to classroom education and family discussions. She said that she was always interested in reading about nutrition and about exercise. She would naturally gravitate towards those areas in any magazine that she would pick up and read as a child. However, she credited the majority of her education to her family dinner table area. She remembered eating dinner with her family and her mother cooking from scratch. (Ms. Shepard describes scratch cooking as taking whole ingredients and combining them together to create an end result. An example she uses is, taking flour, water, yeast and a little bit of sugar to make bread.)

Ms. Shepard described her childhood meals as being traditional. She remembered having meat and potatoes, and also white bread. She also mentioned that they had a tossed salad every night. Sometimes Ms. Shepard and her sister would make the salad, and she described that they "would put the dressing directly on the salad, and you know, it would have regular fat dressing on it." Ms. Shepard described her childhood breakfasts as healthy. She stated that they usually ate oatmeal for breakfast: "Most of the time it was oatmeal or shredded wheat. However, on top of that we would put whole

milk. We drank whole milk.”

Ms. Shepard described her school meals as similar to her meals at home. For example, “school meals were pretty much the same [as home meals]. It was pretty starchy.” Ms. Shepard said that she took her lunch on most days but would purchase school meals on occasion. She recalled that “when we would buy [school meals] we would have things like macaroni and spaghetti. They were the fattier pasta types dishes.” She also recalled that there was no whole-wheat bread. The bread was a white bread roll. Overall, “vegetables were oftentimes way overcooked, and milk was whole.”

Ms. Shepard described some of the changes that she saw in the school meals of today versus when she was growing up. She stated that current meals included more fiber and whole grains. She also said that school meals used low-fat dressing and substituted chicken for beef in many instances. There was also an increase in fresh fruits and vegetables that were used in school meals.

Ms. Shepard was asked to give her definition of wellness. She described wellness as “elements or nutrients that make the body be able to function at its optimum level.” Wellness included allowing the body the ability to fight off disease, allowing the brain to be able to concentrate, and allowing your body the fuel that it needs to maintain itself every day, according to Ms. Shepard.

Ms. Shepard felt that her definition fits in well with modern schools; however, she felt that there was still a lot of work to do. She felt that the

schools' focus on wellness was similar to her definition and that there was a desire for change. She acknowledged that everyone had their own definition of wellness, and each person would operate based on their individual approach. Because of that, she stated schools have "a long, long, way to go."

***Details of experience with wellness policies.*** Ms. Shepard's experience with her district's local wellness policy will be discussed in the following section. Ms. Shepard's understanding of the policy will be explored. Ms. Shepard's knowledge of the practices that have changed due to the policy and the changes in school meals will be presented. Also, a discussion on how school meals are prepared, the guidelines used in the creation of school meals, how the policy is measured, and who created the policy will be reported.

Ms. Shepard knew about the existence of the Child Nutrition and WIC Reauthorization Act of 2004. She stated that the act helped her in her role as Food Services Director because "the reauthorization is based on solid nutrition facts," and helped her focus on the appropriate nutrients. According to Ms. Shepard, "We can know and trust that the requirements are going to gear us in the right direction to have healthy minds and bodies."

When asked what CESD's local wellness policy was, Ms. Shepard referenced the statutes available online. Then, she asked if I had received a copy of it. I explained to Ms. Shepard that the policy was downloaded from the ASBA's website under the wellness section, statute 4950. Ms. Shepard explained that the policy was labeled JL and the regulation was labeled JL-RA.

She also stated that most school districts' policies would look the same because they used the verbiage provided by the national school board. Ms. Shepard was then asked why most policies do not have specific guidelines and goals included in them. Ms. Shepard's explained that part of the statues may have fallen under food services and it would "basically say that we followed the Arizona state nutrition standards under those."

Ms. Shepard was then asked what changes in practices occurred due to the Child Nutrition and WIC Reauthorization Act of 2004. She stated that the increase of fiber and the movement towards whole-grain breads were because of the act. She stated that she had gradually introduced whole-grain buns over the past five years, and they had been completely whole-grain for two years at the time of the interview. Other changes in practice were the substitution of low-fat dressing instead of full-fat dressing and using chicken instead of beef.

Ms. Shepard credited the creation of Arizona's Nutrition Standards for a portion of the changes that took place. She explained that "the standards have helped us a lot by banning, from the start of school to the end of school, the non-nutritious snacks, sodas, and sports drinks, so that has been very helpful." The USDA was also mentioned as a source of positive change because "the USDA commodity program is increasing their opportunities for foods for us that are the healthier versions." For example, the USDA put their fruits in light syrup, instead of heavy syrup. Ms. Shepard also stated that the USDA provided more and more whole grains. Ms. Shepard mentioned



creating whole grain pancakes from the whole grain flour that they provided. She also stated that the processes for their products are leaner now, which helped the district.

Ms. Shepard was given a menu from her school district. She was asked to highlight or circle items that have been changed on the menu due to the Child Nutrition and WIC Reauthorization Act of 2004. Changes that she noted were mostly in the configuration of the food items. For example, Ms. Shepard identified many instances when the grain portions of school meals were being offered as a whole-wheat item. For instance, the Smuckers Uncrustable peanut butter and jelly sandwiches and the toasted cheese sandwiches were different in that they were served on whole-wheat bread. In addition, the mini corndogs and chicken nuggets served in the cafeteria had been altered and coated with whole-grain breading. Pancakes, toast, and all of the tortillas they used were whole-wheat. Ms. Shepard also highlighted that muffins served after the act were low-fat and had whole grains in them. The cereal that they served after the act had added fiber and low or reduced sugar. She stated that they were still able to serve full sugar cereals. However, because of the rise in obesity, they tried to limit how often they do serve cereals that are not reduced sugar or contain no sugar.

Meats were also substituted for a different meat variety in many entrées. Ms. Shepard noted that prior to the Child Nutrition and WIC Reauthorization Act of 2004, a submarine sandwich would not have been made with turkey products. Instead, "it would have been like beef bologna or

all bologna.” Also, the hot dog portion of the mini corndogs were changed to be comprised of chicken instead of beef. Cheese and milk are other items that have been altered in school meals because of the Child Nutrition and WIC Reauthorization Act of 2004. All of the cheese used is changed to reduced fat. Ms. Shepard pointed out that the mozzarella and other cheeses are low-fat. The lasagna they made used low-fat, skim-milk mozzarella, and the cheese crisps were made with low-fat cheeses. She also mentioned that items such as quiches were low-fat because they used part skim milk in the recipe.

Ms. Shepard also noted a few additions and changes in relation to vegetables. The addition of the salad bar was a change, as well as the inclusion of steamed broccoli. Ms. Shepard commented that prior to the act, the norm was either celery or carrot sticks with dip. After the act, there was more variety within the vegetables. Sweet potato fries were also a new item served to students.

Ms. Shepard also pointed out that she ensured the chicken nuggets include only breast meat. She clarified that since she had taken on the position of director, she had been adamant about making certain the chicken nuggets are not just white meat, but breast meat. She explained that white meat could include parts of the ribs as well, which is actually dark meat. She bluntly stated, “I tell the brokers I don’t want the chicken lips ground with it.” She followed up her comment by saying that people who work with her think that it is funny that she says that, but it is true. She explained that “just because you have ground meat or ground turkey does not necessarily mean

it's healthy . . . because they grind the fat and everything.”

Ms. Shepard also mentioned that there were commercial products created solely for schools. She stated that the whole-wheat Smuckers Uncrustables peanut butter and jelly sandwiches cannot be purchased in stores. She continued on to say that there were commercial products and there were commercial products made for schools. Technically, “they are two different things. They can have the same label and everything, and basically taste the same, but for schools there is a formula, for them to be approved by USDA, that they must meet.” Ms. Shepard also said the cereals that contain additional fiber and no sugar, or reduced sugar, are produced specifically for schools.

Ms. Shepard was also asked which items were removed from school meals do to the Child Nutrition and WIC Reauthorization Act of 2004. She responded that whole milk had been removed. She was not sure of other items that had been removed, and asked if she could send a list to me at a later time. At the time this was written, no list had been received.

The preparation of school meals was another topic discussed during the interview. Ms. Shepard's response was that a little over 40% of meals were cooked from scratch. She stated, anytime meat has to be browned, something has to be boiled, or cooked from raw, a base-cooking kitchen would be in charge of the task. Her school district had five kitchens located at their middle schools that were considered base kitchens. Ms. Shepard described base kitchens as having huge floor kettles used to create such things as

spaghetti sauce, where were then shipped out to schools. The remaining 15 feeder schools had ovens, and Ms. Shepard referred to them as “basically heat and serve kitchens.”

Ms. Shepard used spaghetti as an example to describe how meals were prepared and distributed throughout the district. She said that the base kitchens prepared meals for the schools between six and nine in the morning. They would brown the meat for the spaghetti and make the sauce and noodles. Then, that dish would arrived at the school mixed together. The noodles and sauce would be in a 6-inch pan. It would be delivered to the feeder schools in a heated cart by 10:15 am and the pans would be ready to go right into the serving wells and then lunch would begin at schools at 10:45 am. So, the schools would “just unlid [the spaghetti] and it’s ready to go.”

Ms. Shepard also stated that all schools were responsible for making their own breakfasts. Schools used liquid eggs to create breakfast items such as quiches. She described that “They will put scratch components together to make certain things like quiche, and cornbread and eggs.” CESD also has a central baking facility. The baking facility is located at one of their middle schools. At this facility, they bake homemade rolls, french bread, and things of the nature, for the entire school district.

The guidelines used when creating school menus were also discussed. Ms. Shepard commented that they have federal guidelines that they must follow. She points out that the USDA is the district’s primary source of funding for schools meals, and that they have federal guidelines that they

must follow for school meals to ensure that they continue to receive funding. She also shared that, within these guidelines, school districts might provide meals on a food plan basis or a nutrient standards basis, which was also referred to as nutrient analysis. Ms. Shepard's district used a nutrient analysis system, NurtiKids, in the creation of their school menus.

Ms. Shepard then proceeded to discuss the nutrient analysis system, NutriKids, in further detail. She explained the system as a software program where every component of the meal was entered and then run through a database. The system used weighted numbers. For instance, if they were going to serve 800 children per day, they would enter information based on how many of the 800 students they thought would eat certain food items. If they were serving hamburgers, tacos, and a salad bar on a particular day that day, they would enter information based on how many students would choose each item. According to Ms. Shepard, the system was detailed in how the items were entered and analyzed. The system "goes clear down through how many children we think are going to take ranch dressing and ketchup." Then, the information would be compiled and the district would receive a pass or fail on that menu. The menus were evaluated over a week-long time span, and would sometime be adjusted to meet the guidelines. Ms. Shepard reflected: "Obviously we have to pass. We are federally funded so we have to serve things that pass. We must never serve a meal that does not meet [the requirements]."

I asked Ms. Shepard how the local wellness policy is measured. Her

response was that she did not have a plan and that “basically our nutritional analysis is what we look at.” Ms. Shepard was asked if she had to attend board meetings to report on items relating to school meals. Ms. Shepard responded that they did provide presentations to the board, but not specifically on student wellness. The presentation included pieces of wellness by reporting that their meals met the requirements. The report also encompassed the financial condition of the department, which included the budget and their customer service. As Ms. Shepard explained, “it’s a compilation basically of the whole department and wrapped in there is the nutrition piece, but it’s not a direct student wellness policy presentation.”

When asked who was designated to measure the wellness policy, Ms. Shepard stated that the policy said that the superintendent of the district would. She also added that if the superintendent did not do it, then he would designate people to measure the policy. Ms. Shepard then stated that there were different people under each area of the policy that reported back on it. When asked how the reporting process worked, Ms. Shepard added that it is not a formal process. In fact, “we don’t really have [a formal process]. I don’t think very many districts do have a formal report process on the measurement of the school wellness policy.”

***Reflection on policy implementation.*** Ms. Shepard was asked to reflect on how the Child Nutrition and WIC Reauthorization Act of 2004 had altered food and wellness in CESD. I inquired about reactions, both positive and negative, that parents and students had, as well as her suggestions for

the policy development, and her opinion on whether or not the concept of wellness had changed within her school district.

According to Ms. Shepard, parent surveys indicated that parents had positive reactions to the increase of whole grain food items. She stated that in their high Hispanic community, parents found it a challenge to get their children to like whole-grain food items such as whole-grain tortillas. Ms. Shepard said she had parents who could not get their children to enjoy whole-wheat tortillas because they are accustomed to homemade tortillas, which are made with white flour. Ms. Shepard explained further: "So, them having [whole-wheat tortillas] at school enforces and gives them no other opportunity other than to eat whole-grain and the parents are pretty happy about that."

Ms. Shepard also mentioned that parents were pleased that their schools were offering more fruits and vegetables. Ms. Shepard said that the cost of purchasing fruits and vegetables made it difficult for some of their families to provide those items at home. She said, "I think that when it comes down to putting food on the table for the kids often times they just have to focus on the main item." Ms. Shepard also believed that parents are pleased with the variety that is offered. She acknowledged that she had not heard as much feedback as she would like from the parents. However, she felt that the fact that the children had a variety to pick from and had a 10-week menu cycle helped the parents a little bit.

The negative comments that Ms. Shepard had received from parents related to the taste of the food items. Ms. Shepard said that her schools were following government recipes and the salt was very limited. For example, “We will get comments back that will say my child doesn’t like the school meals because they don’t have any flavor, or they don’t have any taste.” Ms. Shepard attributed these complaints to the fact that so many people eat highly processed foods and “oftentimes, what were finding is if you eat processed food it’s highly salted.” She stated that a person’s palate could become accustomed to this enhanced jolt of either flavor or sodium from processed foods. Ms. Shepard commented that she sometimes felt her taste buds were deadened because she was accustomed to the processed foods. When she cooked from scratch at home, she often found her taste buds were “expecting that burst and not getting it.”

In the interview, Ms. Shepard also discussed the students’ positive reactions. Ms. Shepard declared that students were happy that the food was healthier. She knew this because, “When I go out and talk to them [the students] they will say they know that it’s healthier.” Ms. Shepard said the students wanted to eat healthy, and cared about fat in their bodies and greasiness. On occasion they would say, “They say ‘Oh this is greasy I don’t want any of this, it’s too greasy.’”

Ms. Shepard also shared some negative comments from students pertaining to school meals. She said that some of the negative reactions from students were that they did not want to eat broccoli and cauliflower. She said



that they would rather have corn on the cob everyday instead of the vegetables that were being offered in the school meals.

When asked about what changes regarding school meals were going to take place in the near future, Ms. Shepard referenced sodium and an increase in whole foods. According to Ms. Shepard, the school was paying particular attention to labels and the amount of sodium in food items. Ms. Shepard remarked that they were hoping to receive a larger commodity allotment for fresh produce so they could bring in more fresh fruits and vegetables. This would allow the district to use less of their expenditure on fresh items.

Ms. Shepard believed that the concept of wellness had changed in CESD, post-policy implementation. In her words, "I do believe it [the concept of wellness] has changed in our district." Ms. Shepard cited the creation of walking clubs at schools, the focus of getting outside to play, and teachers in the lunch line promoting the foods that they are offering, as examples to how the concept of wellness had been altered in the district.

A suggestion that Ms. Shepard had for future policy development was to increase marketing. Her recommendation would be that all entities such as schools, the USDA, fast food providers, and the institute of medicine, provide a consistent message. The message that Ms. Shepard suggested providing would be a message that supported balancing healthy eating, exercise, and monitoring stress levels.

Ms. Shepard acknowledged that schools faced particular challenges regarding perceptions. She exhibited a desire to create awareness about school lunches. As she explained, “We don’t want the school meal program to have the perception of a school meal program.” Ms. Shepard would like school meals to have more of a perception of a “gourmet healthy eating place.” She said that school meals should not be considered as “an institutionalized, low nutrient program, because they are not anymore . . . we are just not any more.”

**Kino Elementary School District Director of Child Nutrition,  
Natalie Wilson.**

The following section will report the information collected from the interview on December 15, 2010, with Natalie Wilson. Ms. Wilson was the Director of Child Nutrition for KESD when the interview took place. KESD is comprised of 15 schools in which Ms. Wilson was responsible for overseeing the meals programs. Ms. Wilson had worked in this capacity for five years. She holds a bachelor’s degree in dietetics from a state university.

***Background information.*** I asked Ms. Wilson about what she knows about the statistics relating to childhood obesity. She stated that she is aware childhood obesity is increasing each year.

Ms. Wilson described her experience with wellness in a physical aspect while growing up. She recalled playing outside often and “we were always outside playing and riding our bikes.” She said that her mother did not let them watch television. Ms. Wilson described her parents as “farm

kids.” She credited their background with influencing the types of foods to which her family was exposed. Ms. Wilson stated that they ate a lot of fruits, vegetables, meat, and milk.

In discussing the types of foods she ate growing up, Ms. Wilson also said that they did not have junk food in the house. Ms. Wilson stated that different food items were available when she was young. She did not have access to soda, candy bars, chips, or a fast food drive-through. In addition, “We never went through the drive-through. We always ate at home.”

Ms. Wilson described the food they ate for breakfast at home. She stated that they ate a lot of hot cereal, oatmeal, and cream of wheat. She also said that milk was a breakfast staple in their household and “the only thing [to drink] in the refrigerator was milk.” For dinner, Ms. Wilson recalled her mother creating balanced meals. Ms. Wilson’s mother would often bake a chicken, or pork chops with rice and tomatoes. She also remembered her mother cooking ground beef and noodles to create goulash.

In her adolescent years, Ms. Wilson’s mother began attending school and became a Crock-Pot mom. She remembered her mother placing everything in the Crock-Pot. She and her three sisters knew where it was when they got home. Dishes that were cooked in the Crock-Pot were chicken and noodles, beef and vegetables, and also the pork chops, rice, and tomato combination.

Ms. Wilson did not eat school meals. Her mother would send her to school with a packed lunch everyday. Her lunch would consist of a sandwich

and a piece of fruit. Ms. Wilson recalled that, on occasion, her mother would put a treat in her lunch. The treat would be a candy bar cut into three portions so that she could share with her two sisters. Wilson remembered her reaction to the treat: “We would be so embarrassed. We would say ‘do we have to open this in front of everybody else?’”

Ms. Wilson was asked if bringing lunch was a standard occurrence at the school she attended. Her response was “no.” She also stated that it seemed abnormal to bring her lunch. All of the other children were going through the lunch line. Ms. Wilson could not comment on the differences between school meals now and when she was growing up. She stated that she does not even know what the school meals were like because they never went through the lunch line.

When asked to define wellness, Ms. Wilson answered that it pertained to “lifestyle.” She also added that it is a “combination of being physically active and being nutritionally educated and making good food choices. That’s what wellness is to me.” Ms. Wilson felt that her personal definition of wellness paralleled KESD’s definition of wellness. She commented that she could not do her job and live in isolation without the help of the school nurses, physical education teachers, and the administration. Ultimately, “it needs to be an all encompassing effort.”

***Details of experience with wellness policies.*** The following sections will explore Ms. Wilson’s experience with her district’s local wellness policy.

Ms. Wilson’s knowledge of changes in practice due to the policy and the

changes in school meals will be discussed. Also, a discussion on how school meals were prepared, what guidelines were utilized in the creation of school meals, how the policy was measured, and who created the policy will be reported.

Ms. Wilson had knowledge of the Child Nutrition and WIC Reauthorization Act of 2004. She assisted in creating the policy in 2005 when she took on the role of Director of Child Nutrition. Ms. Wilson stated that KESD chose to adopt the standard policy. She clarified that “what we adopted was the standard policy that was issued by the ASBA.”

Ms. Wilson mentioned that the district was currently working on ensuring that their policies were all current on the ASBA’s website. At the time of the study, the policy was not available online. Ms. Wilson then handed me a copy of the policy.

Ms. Wilson explained that the district utilized the standard policy, and then each school was able to out different activities that related to the policy. For instance, some schools had walking clubs or jump rope clubs. She also mentioned that in other schools, the physical education teacher and the school nurse got together to put on a wellness fair. She mentioned that, because the schools were not required to do the same things, the district had a variety of activities taking place.

Ms. Wilson described some changes in practices that took place since the policy was enacted in 2006. She stated that employee wellness was an initiative that they had begun in her district. Ms. Wilson said that they started

a program the prior year through their health insurance called WellStyles. The program focused on the employee and preventative care such as exercise, annual physicals, and going to the doctor for well checks. Ms. Wilson explained the program by stating, “for each thing you do, you accumulate points.” The points could then be redeemed for different items. Some of the items included movie theater tickets, food steamers, a first aid kit for hiking, or a gift certificate to Fry’s Food and Drug. Ms. Wilson stated that points were redeemable at the conclusion of the school year. She also mentioned that participants in the program were entered into a drawing for a grand prize of a Nintendo Wii.

The local wellness policy had evolved since its creation, according to Ms. Wilson. She recounted that, “I think each year we have done something different.” She also mentioned that they had documented the variety of activities that occurred by taking pictures and creating slideshows. Some documented activities were wellness fairs and field events. Fundraisers in the district had also changed post-policy implementation. Ms. Wilson had been asked to put items into the nutrition calculator that is available through the Arizona Department of Education’s website. Principals were requesting the use of the calculator because they wanted to ensure that the items they used in fundraisers met the Arizona Nutrition Standards.

Ms. Wilson had also been solicited to participate in activities that schools were organizing. Post-policy implementation, Ms. Wilson had received calls for assistance on planning wellness fairs and bringing nutrition

information to schools. Ms. Wilson was not sure if the person who held the position prior to her had been asked to participate in events. However, she felt that the creation of the policy has helped inform people that she was available for assistance. She also felt that being visible, bringing the policy to the board, and having a committee willing to communicate with others had helped create some collaboration in the district.

According to Ms. Wilson, another observable change since the policy implementation related to nutrition education. The Arizona Nutrition Network had a partnership with four of the schools within KESD. Teachers collected nutrition points and documented that they incorporated nutrition education in their lesson plans. Ms. Wilson said that the curriculum had already been developed and it showed teachers how they could work the lessons into their regular lessons. After teachers submitted their documentation, they were able to choose additional nutrition curriculum items for their classroom out of a store.

At this point of the interview, I gave Ms. Wilson a menu from KESD and asked her to point out any changes that had been made since the Child Nutrition and WIC Reauthorization Act of 2004. She noted changes in the amount of whole-wheat items, substitutions of beef products, addition of a few items, and the removal of items that did not fit into the nutritional targets.

Ms. Wilson drew attention to items comprised of whole wheat that were offered on the menu. She explained that, “prior to when the 2004 policy

was instated, there really wasn't wheat, wheat hadn't been an issue." Ms. Wilson mentioned that the Smuckers Uncrustable peanut butter and jelly sandwiches and the toasted cheese sandwiches were now whole wheat. Other whole-wheat items that were added include whole-wheat bagels, pancakes, dinner rolls, pizza crust, the bowls for turkey taco bowls, egg rolls, buns for hamburgers and chicken sandwiches, and some of the breading on corn dogs. Ms. Wilson stated that the food industry had begun producing food items that contained whole-wheat specifically for schools. According to Ms. Wilson:

I think that's one of the things that the industry has done to respond to the needs of the national school lunch program, that they added and changed and reformulated. They put wheat into items because that's what [schools] are asking for.

Ms. Wilson also pointed out that beef products were substituted for leaner versions of meat. Turkey was used for more entrées instead of beef. Ms. Wilson said that the district's menus included beef sloppy joes and beef hot dogs in the past. The change to turkey was made because menu analysis showed that the turkey items were lower in fat. Ms. Wilson said that turkey items that came to be included on their menus are turkey sloppy joes, turkey hotdogs, turkey corndogs, turkey sausage for breakfast, and turkey taco bowls. A few items were added to the menus due to the Child Nutrition and WIC Reauthorization policy of 2004. Ms. Wilson noted that oatmeal was a



new addition. She also stated that the addition of the fruit and salad bars at each school were new.

During the interview, Ms. Wilson was also asked to discuss items that were removed from the menus in 2006 when the Child Nutrition Reauthorization Policy of 2004 was enacted. Ms. Wilson said that some of the items that were being served exceeded the act's requirement that an item not exceed 30% fat. Because of this, Hot Pockets were removed from the menus, as well as Pop-Tarts. Ms. Wilson said that the menus could probably have been reconfigured to allow the inclusion of those items; however, they chose to discontinue their use because they contained too much fat and/or sodium.

Butter was another item removed from the menus. Ms. Wilson stated that toasted cheese sandwiches started to be made with butter spray and baked in the oven. Prior to the act, the toasted cheese sandwiches were made with real butter or margarine. Ms. Wilson said that they noticed that the fat was too high when they used butter, and they decided that they could not continue to prepare the sandwiches in that manner.

An additional alteration to KESD's menus involved cheeseburgers. Cheeseburgers were removed from the menus and replaced with hamburgers. According to Ms. Wilson, the cheese contained too much sodium. She also stated that hamburgers are only served at their school once a month. Juice was also removed from the menu as a daily option. Ms. Wilson stated that juice was being served every day during breakfast. The district chose to switch to serving whole fruits for breakfast instead.

Ms. Wilson also mentioned two new items that were not included on the menu that she was viewing. In the February following the interview, they planned to add hummus to the lunch menu. The hummus would be served as a protein and on the same day as carrots and a gordita-type, or pita, bread. They were also adding hard-boiled eggs to the breakfast menu twice in February 2011. Ms. Wilson said that they served hard-boiled eggs as a pilot item, and the students kept asking for more.

Ms. Wilson mentioned that she thought KESD was a leader in choosing different products for their school meals. She felt this role was possible due to their membership in the Mohave County Cooperative. She explained that the Mohave County Cooperative was started to assist school districts in purchasing textbooks, copy paper, and things of that nature. The cooperative was then expanded to include a nutrition arm, the Arizona School Partners for Nutrition (ASPN), which was responsible for bidding for food and supplies. Ms. Wilson stated that KESD became a member of the cooperative in 2002. Through the cooperative, the district was able to ask that certain products get brought in. Ms. Wilson said that, because they were always searching for whole-wheat products and lower fat foods, they “got a reputation as being the special order school.” This was how the district was able to locate Bake Crafters’ products, which supplied their whole-wheat products such as pancakes, mini-loaves, and other items. According to Ms. Wilson, “I think we’ve made some really big changes in what was available in our schools.”

Ms. Wilson discussed that many companies have reformulated their products to fit the Arizona Nutrition Standards. She explained that “When the Arizona nutrition standards passed, there was a huge re-formulation to a lot of vendors products for elementary schools.” Ms. Wilson said that fiber was added to some items. Fiber was added to cookies, breads, and breakfast pastries. Fiber was also added to corn tortilla chips. Chips are a good example of the conversion: “The little corn tortilla chips had like .75 g of fiber and you needed one [gram of fiber], so they reformulated them so that there was 1 gram [of fiber].” Breakfast bars also did not have enough fiber, so fiber was added. Regulations stated that items must have at least one gram of fiber or they have to contain 100 calories or less.

Ms. Wilson said that in the past, the list of foods that fit the nutrition standards for Arizona schools was a short list. She perceived that the vendors, who “were probably driven by monetary need,” had reformulated so that they could get their products back in schools. Companies such as Kellogg’s, General Mills, Frito-Lay, and Quaker have all reformulated, according to Ms. Wilson. She went on to explain: “that’s why we started seeing everything packaged with one hundred calories, 1 gram of fiber, and less than 30% fat.”

Ms. Wilson described the method of food preparation in KESD as “fresh and prepared daily.” The district had a central warehouse where the kitchen managers ordered from weekly. The food was then delivered on a daily basis to each school and prepared that day. Ms. Wilson said that the

kitchen managers also ordered milk, produce, and bread from the vendors and those were delivered directly to the schools. Ms. Wilson mentioned that each school has a fruit and vegetable bar and each day different items were available at the bar.

Ms. Wilson then discussed that the creation of school meals follow guidelines that are two-fold. Ms. Wilson stated that schools went by the NSLP standards and the Arizona Nutrition Standards.

First, Ms. Wilson explained the NSLP. Within the program, there were options that schools could choose to create their menus. There was a traditional plan, where your food is measured: “In a traditional plan you need eight ounces of milk, you need 3/4 cup vegetable, you need 15 servings of bread or grain, and then you need two of ounces of meat or meat alternate, and that’s for lunch.” The other method that districts would use was to analyze their menus, which the USDA referred to as NuMenus. The NuMenus analyzing method, Ms. Wilson stated, allowed schools to be a bit more flexible because they are not limited to do a certain serving size. For instance, “you could go down to a 1.5 ounce beef patty and increase your fruits and vegetable servings to get your calories up.”

Ms. Wilson said that KESD chose the NuMenus system to analyze their meals. They used a software program called NutriKids. Ms. Wilson said that meals were analyzed to see if the nutrition targets were met over a five-day span. She explained that a school could have a day where the meal might be higher in fat during the week, but you could offset that day by including

another day that contained a really low amount of fat. For example, during one week, a school could serve an entrée that is high in calories like sweet and sour chicken, or an egg roll. Then, later that same week a low-calorie meal, like vegetarian chili, could be served to offset it. Wilson described the new menu method as “flexible.” She also stated, “it allows for a lot of variety you aren’t limited to serving sizes.”

Ms. Wilson then explained the Arizona Nutrition Standards. The Arizona Nutrition Standards were developed for food sold on campus while educational activity is being conducted, and is separate from the NSLP. This could be food sold by students to do fundraising, sold out of snack bars, or sold by teachers that have class stores to raise money. Prior to these standards, there were no regulations for this type of food, so the Arizona Nutrition Standards were developed to fill that void.

I asked Ms. Wilson how the local wellness policy is measured. She stated that they do not have a standard evaluation that is used from year-to-year. She mentioned that measurement was a difficult piece because the local wellness policy encompasses so many areas. For her portion of the policy, Ms. Wilson stated she could use the nutrition fact sheets from NutriKids as evidence to show that they met those nutrition targets.

Ms. Wilson stated that the wellness committee made an annual presentation to the school board. In this presentation, they communicated the activities taking place in regards to student wellness. They would bring pieces of evidence forward from school health fairs, activities that the

physical education department were participating in, and things that the school nurses took part in.

According to Ms. Wilson, a wellness committee created the KESD local wellness policy. The committee consisted of seven members. Those members were two school nurses, a principal, a parent, a student, a board member, the district's registered dietitian, and Ms. Wilson, the Director of Child Nutrition. Ms. Wilson mentioned that committee would be updated within a year of the interview because some of the members had retired or graduated.

***Reflection on policy implementation.*** Ms. Wilson was asked to reflect on how the Child Nutrition and WIC Reauthorization Act of 2004 altered KESD. Ms. Wilson described the positive reactions that parents have had to the changes in school meals. She stated that parents enjoyed having the nutrition information communicated to them. This is possible, Ms. Wilson stated, "because the Kino Elementary School District has nutritional evidence with the NutriKids fact sheets of what they are serving for meals." "This creates a more trusting relationship," states Ms. Wilson.

The relationship of trust led to parents requesting information from Ms. Wilson. Near the time of the interview, she had a parent ask if she could research organic yogurt. Ms. Wilson conducted research, and decided to bring the organic yogurt into two of the district's schools. Ms. Wilson said that this example was evidence of the working relationship between parents and students within their district.

Ms. Wilson stated that a negative comment she encountered from parents dealt with the lack of options for vegetarians. Ms. Wilson said that they had an increase in vegetarian students in their district. She pointed out that they try to accommodate vegetarians by offering beans and cheese; however, because they do not sell tofu, the schools lack variety for vegetarians. Ms. Wilson mentioned that when beans and cheese are not available the daily vegetarian option is peanut butter and jelly.

According to Ms. Wilson, students had positive reactions to the variety of meal options. Meals in KESD are not repeated during the month. Ms. Wilson explained that “the menu gets changed a little bit so that it doesn’t get stagnant.” Though the students had some positive reactions, the students also found some negative aspects to the change. The students’ primary complaint about school meals, she said, is that they would like food items that are available in fast food stores. As Ms. Wilson explained, “It seems like when we do a student survey the things that are on those surveys are that they want Taco Bell, McDonald’s, Burger King, and Pizza Hut in the schools.” Ms. Wilson also said that although she had not heard the complaint near the time of the interview, in the past students had asked for french fries similar to the ones sold in restaurants.

Ms. Wilson felt that wellness has changed in her district. She said this change was evident in the type of support they received from district employees and school board members. She said it was also evident in the creation of the employee wellness program. Ms. Wilson thought that the

employee wellness program “is evidence that we are moving forward as a district.”

Ms. Wilson’s suggestions for the future would be additional resources available and collaborative opportunities for school districts trying to make changes. She stated that there was not a collaborative effort among school districts when creating the local wellness policies. According to Ms. Wilson, everyone was forming their own committees, and developing their own ideas because it needed to be developed and implemented in a certain time frame. Given those circumstances, “There really wasn’t time for collaboration and I think that’s just probably the way the political animal moves, and I’m sure it could have been different.”

Ms. Wilson added that it seemed the new Hunger-Free Kids Act of 2010 that was signed at the time of the study would encourage school districts to start doing what KESD was already doing, such as switching beef for turkey products, changing the fruit juices to whole fruits, or offering a fruit and vegetable bar. Ms. Wilson acknowledged that those food items are a bit more expensive. She felt that the KESD district was able to purchase the higher priced items because they had decided to be a non-pricing district. This meant that every student went through the lunch line to take a meal and did not have to pay for it out of their pocket. Ms. Wilson said that because each student went through the line and took a meal, their reimbursement is fairly high and pretty steady. She also said that if a student chose not to eat, then the district would not produce revenue. Ms. Wilson continued to explain



that 75% to 80% of the families in her district qualified for free and reduced meals. The income generated from that group of students was adequate enough to cover the children who did not qualify for free or reduced lunch. She also mentioned that being a member of the Mohave County Cooperative allowed them to keep costs lower because they got excellent bidding prices.

Ms. Wilson concluded the interview by stating that she thinks the local wellness policy has brought more recognition to the school lunch program. She said that they were trying to make positive changes, and it was a collaborative effort between everyone in the school district. Overall, she thought that the change “brought people together.”

**Clearwater Elementary School District Superintendent, Anthony Lugo.**

The following section will report the information collected from the interview on January 12, 2011, with Dr. Anthony Lugo. This section will report background information including Dr. Lugo’s position within the district and educational background. The section will discuss his knowledge of the statistics related to obesity, childhood activity, childhood meals, experience with school meals, and if he noticed a difference in school meals post-policy implementation. His definition of wellness and how that definition of wellness fits into his current school environment will also be reported.

***Background information.*** At the time the interview with Dr. Lugo took place, he held the position of Interim Superintendent in CESD. He had

work in this capacity for 2 months. Prior to taking on the Interim Superintendent position, he was the Assistant Superintendent for administrative services within the district.

Dr. Lugo's educational background was discussed during the interview. He holds a Bachelor of Arts in History. He also has a teaching certificate. He has a Master of Arts in Counseling with a certification in counseling as well. The most recent degree that he obtained was a Doctorate in Educational Leadership. All of his degrees were obtained from state universities.

Dr. Lugo is aware of the increased statistics related to childhood obesity. He explained that he had "read a lot of documentation and a variety of media that has indicated that there is an increase of obesity among students, particularly looking at K through 8th." Dr. Lugo believed that the rate of obese children is in the 20% to 30% range. He admitted, "My statistics could be wrong, but the last data that I had a chance to look at was right in that ballpark."

Dr. Lugo was asked to discuss his experience with wellness while growing up. He stated there were two different levels of wellness, one being nutrition and the other being activity. Dr. Lugo was an active young adult. He recalled that "When I was growing up I was an athlete. I would work out, formally work out, twice a day." Dr. Lugo stated that in high school he was involved in a different sport each season: "I played each of the sports, which would begin with football, then basketball, and track, and baseball." Dr. Lugo

went on to play football at the college level where fitness and nutrition was a major focus. He remembered that, “When I got to college, there was a weightlifting program and there was a fitness program.” Dr. Lugo stated that the nutrition program concentrated on a person’s level of nutrition and their level of body fat.

Growing up, Dr. Lugo’s meals were homemade and balanced. As he explained, “My mother would try to have a balanced meal each time.” Dr. Lugo remembered always having meat on the table. Sometimes the meat would be beef or pork. He also stated his family would eat Mexican food twice a week, which typically included enchiladas and tacos. He went on to describe another aspect of his meals: “We would also have a lot of soups. I grew up in the high country where, at this time of year, there is about three feet of snow on the ground.” Dr. Lugo remembers the soups being a stew with meat.

The beverage that Dr. Lugo drank growing up was pop. He remembered not having water with dinner. He said that the children favored pop, so that is what his mother served. When Dr. Lugo was a junior or senior in high school, his mother made the decision to stop serving pop and began to serve Tang with dinner.

Dr. Lugo’s experience with school meals was inquired about. Dr. Lugo stated that he would bring his own lunch and eat cafeteria food as well. The reason that Dr. Lugo gave for this was his involvement in sports. He explained, “I would have practice after school so there was always this gap in

there, perhaps an hour or so to have a little bit of a bite.” Eating prior to practice helped Dr. Lugo keep his energy up.

Dr. Lugo’s pre-practice snack was contained in a brown bag. Typically, his brown bag would hold a type of fruit and a sandwich. The sandwiches would be made with peanut butter and jelly or the meat that was left over from dinner. He would also have a treat in his bag: “The nice part is that was we would have sweet rice with cinnamon.”

Dr. Lugo described cafeteria meals as fresh. Dr. Lugo recalled enjoying the fried chicken that the cafeteria offered. He also liked the biscuits, which he described as “hot and fresh.” As he remembered, “We were able to put peanut butter and honey on those biscuits.” Other meals that Dr. Lugo remembered were macaroni and meat, and also macaroni and cheese. Dr. Lugo described a difference in his school meals compared to contemporary school meals: “At that time we didn’t have a lot of pizza and hamburgers and stuff. It was more of a pre-prepared type of meal that consisted of the four food groups.”

Dr. Lugo described his definition of wellness as a balance between exercise and nutrition. He mentioned that students typically had to balance exercise and nutrition with school. Dr. Lugo stated, in his case, he had to balance wellness with work. He felt that it was important to have knowledge in the nutrition area so that the items people consumed would give them enough energy to get through the day. He also stated that a person needed enough exercise to keep their body fit. To keep his body fit, Dr. Lugo had a

goal of working out three times a week, and tried to include walks into his workday.

Dr. Lugo felt that his definition of wellness fit into CESD's concept of wellness. He had perceived that wellness was incorporated into the educational environment within the schools. He also noticed an increase in this type of education in the years leading up to the interview; however, he felt that there was still work to be done. As he put it, "I believe we have to go further and continue to do better job. I think that there is a foundation there.... but at this point in time there's not enough."

***Details of experience with wellness policies.*** The following sections will explore Dr. Lugo's experience with his district's local wellness policy. Dr. Lugo said he was aware of the Child Nutrition and WIC Reauthorization Act of 2004. He felt the act reinforced his personal beliefs. In terms of needing to promote wellness, exercise, and nutrition in schools, he agreed with the act. He also acknowledged that the school district's wellness policy is "pretty generic at this time." He planned to review the policy to see if the district could incorporate more items into it.

A change that he saw within CESD was the integration of health into Physical Education classes. He specified, "I like the incorporation with PE because then you have two things like exercise and nutrition, and the students see the value of both." Dr. Lugo stated that the integration allowed the students to get a well-rounded idea of the two concepts. Dr. Lugo also stated school principals were a key component to the local wellness policies.

He stated that the district counted on site principals to uphold policy.

According to Dr. Lugo, “We look at principals having accountability to ensure that it’s quality and is implemented correctly.” He also stated that the use of benchmarks to monitor the policy was important.

Changes in school meals since the implementation of the 2004 Child Nutrition and WIC Reauthorization Act were discussed. Dr. Lugo was given a district menu and asked to highlight specific differences that have occurred. The biggest change that Lugo noted was a decrease in raw sugar. Dr. Lugo noted that there were more raw fruits on the menu. He also stated vending machines were no longer supplying soda. Instead, Dr. Lugo stated that the vending machines were filled with bottled water. In fact, “[the vending machines with bottled water] has had a huge effect on students not having all that sugar intake at schools.”

Dr. Lugo commented on the increase in vegetables, in particular the salad bar. He explained, “The thing that I know that has changed a great deal is the salad bar.” He also circled steamed broccoli, carrots, and cauliflower as changes to the menu.

In addition Dr. Lugo commented on the fresh items. He said that: the fresh items, the celery sticks, those types of things [are new]. In the past what would occur is that you would have other items there that were not necessarily fresh fruits and vegetables and that is a huge change since 2006.

Dr. Lugo used oranges as an example: “These are actual orange slices... rather than a container or a can [of oranges].”

Dr. Lugo also noted some items that have been removed from the menu. He also stated that peanut butter was used less frequently. Pop and pastries have been removed from school cafeterias, as well as items with saturated fat, such as chips. According to Dr. Lugo, “The saturated fat items like chips, we no longer have those. That’s huge.” He followed up by stating, “I’m not saying kids don’t still eat those, especially those hot Doritos or Cheetos, but we try not to give those [out] ourselves.”

Dr. Lugo was asked how the meals within his school district were prepared. He stated, “basically, most of the stuff that we serve is heated up and then we serve it.” Most meals, he commented, are heated from frozen. He stated that there are some portions of the menus that are created from scratch, but it is very little. He posited, “I think we’re one of the few districts that still makes some of the stuff from scratch.” Dr. Lugo was then asked about the guidelines used in the creation of school meals. Dr. Lugo stated that he could not recall the name of the national guidelines. He did state that his director adhered to the guidelines and they took the guidelines very seriously. He also commented that the district had checks and balances to ensure cafeterias were producing acceptable meals.

During the interview, Dr. Lugo was also asked to discuss policy measurement, the person designated to aid in the measurement of the policy, and the committee who created the policy. He stated that having only been in

his current position for two months, he had not found anything that would measure it effectively. He was also unaware of who was designated to measure the policy and who created the original policy.

Dr. Lugo stated that he had a plan for the measurement of the policy. He outlined his plan as follows: “What we plan to do is not only have an evaluation plan that has timelines etc., but we also want to look at who’s going to do what and look at long-term goals and short term goals.” Lugo stated creating SMART goals (specific, measurable, attainable, realistic, and timely), which would allow the district to measure the goals that they had.

***Reflection on policy implementation.*** I asked Mr. Lugo to reflect on how the Child Nutrition and WIC Reauthorization Act of 2004 had changed CESD. Part of this reflection included a discussion of the positive and negative reactions from parents and students. His suggestions for policy development, and his opinion on whether or not the concept of wellness has changed within the school district, were solicited as well.

In a discussion about the reactions that parents had to changes in school meals, Dr. Lugo stated that the reactions were a mixture of positive and negative feelings about the items served in the cafeteria. The reactions went “back and forth with hamburgers and pizza.” Some years the parents wanted hamburgers served more often, and some years they did not, according to Dr. Lugo. Dr. Lugo also stated that the parents usually voiced their opinions about the lines in the cafeteria. The parents wanted their



children to “get in and out of the cafeteria within a certain timeframe.” Dr. Lugo also stated that the parents wanted the food to be hot and nutritious.

During the course of the interview, Dr. Lugo was also asked about the students’ reactions to changes in meals due to the Child Nutrition and WIC Reauthorization Act of 2004. According to Dr. Lugo, the students usually reacted positively to certain meals. Pizza and hamburgers are student favorites, Dr. Lugo remarked. Dr. Lugo also stated that the students seemed to like meals made from scratch, such as the chicken dishes.

Dr. Lugo was questioned about plans for future changes in school meals. He answered that “The idea, really, I believe, is to make them as nutritious as possible.” Dr. Lugo acknowledged that this required a balancing act between what is nutritious and what students will actually eat. He felt that it was important to educate the students on the nutritional values of the food so that they could make the correct food choices.

Dr. Lugo planned on making some changes to school programs related to wellness going forward. For example, “the programs that we have looked at for the future are, to increase the physical activity of students.” Dr. Lugo added that some of the programs would be organized while others would not be. He favored the idea of allowing students the opportunity to choose activities they liked to do, in particular during recess time.

He also discussed participation in programs that are research-based. Dr. Lugo did not want to implement programs that “don’t have a good history, and we do it anyway, not knowing that it doesn’t have a good

history.” He felt that it was a bad idea to waste time implementing programs that were not best for students. Dr. Lugo also strove to keep Physical Education classes included within the school day, and avoided offering them before or after school, as some districts had done. Then Dr. Lugo was asked if wellness had changed within CESD overall. He responded, “I haven’t been in this position long enough to give a good answer on that.” However, he did say that he noticed some change through his experience in administrative services.

Time was also discussed as a factor in policy implementation. Dr. Lugo explained, “We have to understand that because of the constraints that we have with curriculum, core standards, etc., we have to incorporate some of these things either outside of the school day or within . . . another curriculum.” Lugo commented, “At some point in time it would be nice to have more time to be able to get more in-depth in these types of topics.” Not long after, the interview came to a close with a discussion of the challenges involved in implementing policy. According to Dr. Lugo, “The biggest challenge is educating, and the second hurdle or challenge is to have accountability.” Lugo stated that both must be present to assure that they policy was being followed.

**Kino Elementary School District Superintendent, Rebecca Cooper.**

The subsequent sections will report the information collected from the interview with Rebecca Cooper. The interview with Ms. Cooper took place on December 8, 2010. At the time the interview took place, Ms. Cooper held the

position of Superintendent for KESD. Ms. Cooper had been the Superintendent for three and one half years at that time. Prior to becoming the Superintendent of KESD, she worked in the business services portion of public education for 17 years.

***Background information.*** Ms. Cooper graduated from a high school in the Eastern portion of the United States when she was 16-years-old . She said her family moved around often when they were growing up, and she took extra academic courses during summer sessions. By the time she was 16, she had completed the requirements for graduation for the state they lived in. Ms. Copper then attended community college before transferring to a university to obtain a Bachelor of Science in Business Administration. Ms. Cooper then went on to complete a master's degree in business administration. Currently, Ms. Cooper is a completing her doctoral degree in Educational Leadership and Supervision.

In the interview, Ms. Cooper was asked about her knowledge of the statistics relating to the increased rate of childhood obesity. She responded that there was a lot of coverage in the media. She also stated that we were becoming more obese as a nation, not just as adults, and obesity was beginning at younger and younger ages. She also responded that within her school district, nurses tracked statistics related to childhood obesity. Ms. Cooper said that this made the information more of a reality because it was associated with their students.

Growing up, physical activity was common in Ms. Cooper's house. She said that she was an active child because she "had eight brothers and there was always a game going on." They would play baseball or basketball. They would also go skating and have wrestling matches in the living room. Ms. Cooper said that she has several memories of broken arms and broken fingers. She described the injuries as "nothing serious, but we certainly weren't sitting on the couch the whole time watching TV."

Ms. Copper described her experience with the nutrition portion of wellness while growing up as an exploration of a fad. For example, she recalled taking yoga classes with her cousins. They would also eat brown rice and vegetables. She explained that "the whole idea of eating healthy was more of a fad. I was introduced to it through sort of a movement." Ms. Cooper recalled that they did not understand the nutritional value of the foods they were eating. According to Ms. Cooper, "We just thought we were being cool."

Ms. Cooper described her family meals as "not really balanced or nutritious." She stated that when her parents got married, her mother did not know how to cook. This is because "she had lived in a culture where other people did that for her, in Central America." Ms. Cooper stated that when her mother did learn to cook, she prepared meals that included a lot of ground beef. The norm in her house included spaghetti and meatballs, meatloaf, hamburgers, and roast beef on Sundays. They also ate hotdogs, bologna sandwiches, and oatmeal frequently. Ms. Cooper also recalled eating chicken on occasion; however, it was not a big part of their diet. Experimenting with

new foods came from Ms. Cooper's own desire to try new things. She recalled having brussels sprouts for the first time at a friends house. She then introduced them to her family. As she recalled, "Putting greens in the diet, that really came from my own wanting to try new things and introducing them into the family."

Ms. Cooper was then asked to describe her experience with school meals. She attended a Catholic school until she was in junior high, where school meals were not served. She remembered bringing a brown bag to school. Inside her brown bag she would have either a peanut butter and jelly or bologna sandwich. Oreo cookies may have also been found in her lunch bag. The Catholic school provided milk to drink.

When she began junior high, Ms. Cooper started eating school meals. Ms. Cooper recalled being excited about eating in the cafeteria: "I thought it was the coolest thing in the world not having to bring my own peanut butter and jelly sandwich. I mean, hamburgers! Oh my gosh." Her favorite school meal was chicken chow mein.

Ms. Copper remembered the typical school meal beginning with the buffet lines. She recalled walking through the line on chicken chow mein day to receive the chicken noodle and celery mix. She would also get crunchy noodles on top. She also mentioned that there were usually different entrées for students to pick from. For example, some choices were hamburgers or fish sticks. They also served Jell-O often. The drinks offered were milk and a Kool-Aid type drink. Ms. Cooper sees a difference in contemporary school

meals as compared to the school meals she ate. Salad bars were not an option. She elaborated, “They didn’t have salads in school lunches when I was going to school.”

Ms. Cooper was asked to give her definition of wellness. She responded that “I think the very first thing that my definition of wellness is, is an awareness.” She said that an awareness of wellness should be the first step in understanding it. Ms. Cooper also felt that wellness was an understanding of the “correct nutrition for your age and body uniqueness.” She added that in her mind “wellness should be custom fit with some parameters.”

When asked how her definition of wellness fits into her school environment, Ms. Cooper said that her big push right now is awareness. Ms. Cooper thought that her school district was in the beginning stages of what she thought wellness was. As she described:

I think that I’m in the first phase of what my ideal wellness is. To get to the last phase of wellness, to have a unique plan for each person, I’m not sure we can do in the school environment.

***Details of experience with wellness policies.*** Ms. Cooper was aware of the local wellness policy that her school district created as a requirement of the Child Nutrition and WIC Reauthorization Act of 2004. She explained that the local wellness policy was part of their Governing Board Policy. At the time of the interview, KESD was in the process of revising their entire policy manual. Concurrent to when the study was conducted, the local wellness

policy was not officially incorporated into the policy manual, although the district had officially adopted it. However, Ms. Cooper said that it would be updated and included soon.

Ms. Cooper then explained their local wellness policy. ASBA recommended the standard policy to their district in the 2006-2007 school year. According to Ms. Cooper, the ASBA conducted a policy advisory when a new policy was required. It was part of the service that they provided to school districts. The ASBA provided districts with a template and instructed districts to tweak the policy if they would like to. KESD chose to adopt the standard policy. Ms. Cooper proceeded to explain the ASBA in further detail. She said that the ASBA is the association that the Governing Board members belong to. She also stated that the main job of the Governing Board is to adopt policy, and that service comes through the ASBA.

Ms. Cooper spoke to the topic of what was included in the local wellness policy. She mentioned that the policy included the language, “the superintendent will” or “the superintendent is directed.” She also said that the policy was not as specific as what was actually happening in the district. She explained, “It doesn’t capture what’s happening in the district, but policies are not supposed to do that, because you’re supposed to have flexibility.” Ms. Cooper said the JL-RA was more specific about what was actually taking place in the district.

Ms. Cooper then explained the history of the policy creation. Ms. Cooper attended a workshop for Arizona School Business Officials in the

spring of 2006. It was at this conference that she learned that they would need to create a local wellness policy in order to be in compliance with the Child Nutrition and WIC Reauthorization Act of 2004. According to Ms. Cooper, they received the ASBA version of the policy in May 2006. Then, KESD proceeded to create a wellness committee, with the required members. Then, they did a first and second read of the policy so that it would be ready to implement in July 2006.

A shift in practice in KESD took place in terms of employee wellness. Ms. Cooper said, “the shift to employee wellness was my idea to help support the student wellness.” Ms. Copper acknowledged that the local wellness policy was student-centered, so her employee initiatives were not officially part of the policy; however, it was part of the practice within the district. Ms. Cooper supported her reasoning for supporting employee wellness. She felt that the adults in the district needed to be models for the students. What was happening in the district, according to Ms. Cooper, was a linkage between the leadership and student wellness. Ms. Cooper’s motivation behind adult wellness were that she did not want the adults to say, “We support student wellness except when I eat and my eating habits [junk food from McDonald’s] are what the kids see.” Ms. Cooper followed up by saying, “The job of leadership, I think, is to charge and challenge people and motivate people to become role models for their students. In my opinion, implementing the student wellness policy involved implementing an employee wellness policy.”



Ms. Cooper then took the time to explain the employee wellness initiative. The employee wellness program was part of the district's health insurance, United Healthcare. Ms. Cooper stated that the district paid a premium for full-time employees. Then, in return, the health insurance provider assisted the district in developing an employee wellness program. The first year of the program was the 2008-2009 school year. They held a district-wide a kickoff event. Ms. Copper spoke at the event to inform the employees that they would focus on wellness that year, and they all did the Hokey-Pokey. Then, each employee received a pedometer that was donated by United Health Care. As Ms. Copper explained, "People could wear them [the pedometers] on their shoe but it wasn't anything specific it was just, 'hey you, know... walk more'"

That year, United Health Care also assisted KESD in establishing an employee incentive program called WellStyles. Through the WellStyles program, employees earned points by participating in health related-activities. For instance, an employee could earn points exercising, going to the dentist, attending informational or educational classes that were offered by United Health Care, and getting their well exams. At the end of the year, employees exchanged their points for an item of their choice from a prize catalog.

Ms. Cooper admitted that the employee wellness program cost money. Ms. Cooper explained, "I think we spent about \$8,000 and that was to get the prizes, the Nintendo Wii, the gas cards, and the Target gift cards." However,

she pointed out that it actually saved money in the long run. According to Ms. Cooper, “all of the research shows that if you are healthier, you have less cost and health insurance later on down the road.” Ms. Cooper stated that the employee wellness program was part of a philosophy. Although it may not be measurable ten years down the road, Ms Cooper maintained that it was “the right thing to do,” and she believed in the concept.

The first year of the employee wellness program, employees participated in a few events. The employees organized a group to walk in the Susan Coleman Race for the Cure. Ms. Cooper admitted the attendance was low, but it was a start. The district also participated in a T-Mobile challenge that, as Ms. Copper described, was “part of the employee program that sort of morphed and mixed in with the student program.” In the T-Moblle challenge, 10 students from each school were selected to compete in the Rookie All-Star challenge. In order for the students to go, the students had to track items that they ate and track their physical activity. They also created a group called the Wellness Ambassadors. The Wellness Ambassadors were a group of people who were going to work on the wellness policy for students and employees. Ms. Cooper explained, “the Wellness Ambassadors is something that we put together to move this idea along.”

The next few interview questions that were asked related to school meals specifically. Prior to answering the questions, Ms. Cooper stated that she probably would not know much about these items. Ms. Cooper was asked what specific changes were made to school meals since the Child Nutrition

and WIC Reauthorization Act of 2004 was enacted. Ms. Cooper replied that they offer less sugary drinks.

Ms. Cooper was given a breakfast and lunch menu from her school district and was asked to highlight items that have been added to the menus due to the act. She was also asked to identify items that may have been removed from their menus. Ms. Cooper responded with, "I would not know what changed between now and then . . . I just don't know the level of detail."

Ms. Copper was also asked how the school meals were prepared in her school district. Ms. Copper stated that there was a combination of central kitchen cooking and school sites cooking. She explained, "My understanding is that we do have a central kitchen that can create from scratch meals when [the menu] calls for that." Ms. Cooper was then questioned on which guidelines were used in the creation of school meals. She replied that the NSLP standards were used.

Ms. Cooper stated that KESD's local wellness policy was evaluated through feedback. She said that she did not receive a formal report on the activities that took place, but mentioned that she probably should. The reason she gave for not requesting a formal report was that she does not want the activities to feel like work. She enjoyed hearing about the activities from the principals in an informal manner. Ms. Cooper also stated that when she held meetings with the Wellness Ambassadors, "it's more of a conversation" than a formal evaluation.

Ms. Cooper also mentioned that KESD created a new position in the school year during which the interview took place. The position was a Health and Wellness Nurse. Ms. Cooper stated that the Health and Wellness nurse would assist in ensuring the local wellness policy was adhered to.

When asked about how the local wellness policy was created, Ms. Cooper explained that there was a wellness committee. The committee consisted of school nurses, a board member, a parent, a student, and the Director of Child Nutrition. Ms. Cooper commented on the wellness committee's members. She said that they were all interesting people who care about student wellness. She mentioned that the board member was a leader in the district who was married to a teacher. The parent volunteer was described as an educated, informed parent employed in the health industry in some capacity, and the student was passionate and liked to speak in public.

***Reflection on policy implementation.*** Ms. Cooper was asked to reflect on how the Child Nutrition and WIC Reauthorization Act of 2004 KESD. Overall, parents had positive reactions to the changes that KESD made to school meals. The positive reaction that Ms. Copper commented on was an adjustment that was made because students were requesting a second helping of food during lunchtime. Parents were pleased that an agreement was reached that their children could get a second helping of food, but it had to be a side dish. Ms. Cooper stated that the side dishes were usually a fruit or a vegetable, which were healthier, and that made the parents happy. Ms. Cooper was then asked to give a negative reaction from parents regarding

changes in school meals since the Child Reauthorization Act was implemented in 2006. Ms. Cooper said that sometimes parents felt that the district was not providing enough choice in the school meals. When asked about student negative and positive reactions to changes in school meals, Ms. Cooper did not have anything information to add. Ms. Cooper stated that “the parent complaints are the student complaints.”

I asked Ms. Cooper if she planned on making any changes in her district related to wellness in the future. She responded that they had a curriculum for health that needed to be formalized. She mentioned, “It’s not something that we want to add to the teacher’s plate.” She added that they would like to give recommendations on how teachers could deliberately integrate the content into their lessons.

Ms. Copper believed that wellness had changed in KESD. Ms. Cooper gave the employee wellness program as an example of the shift in stance on wellness. She went on to say, “If we want our kids to get better at wellness we need to be role models for that, and we are.”

Ms. Cooper had a suggestion for the implementation of the policy in her district. Although she thought the policy was already robust, she felt they could do more in terms of a parent education piece. Ms. Cooper followed up by saying, the district just hired a new Parent Education Coordinator and she planned on developing the component further in the coming year. Ms. Cooper also added that an increase in funding would help the situation. She stated that they are already in full compliance, but of course they could do a better

job if they had more money. She commented more specifically in the following:

If I could only have another million dollars we could do more activities in terms of PE, but we can't take away from the instructional time because we are so under the gun in making sure that we had the academics . . . it's tough.

Ms. Cooper closed the interview by adding a comment about a recent inquiry for a business partnership with KESD. She stated that McDonald's had wanted to partner with them to provide an oatmeal and raisin breakfast to their students for free. Ms. Cooper said that she had to decline the offer. Her reasoning was that the school district already provided their students with oatmeal and raisins for breakfast. Ms. Cooper remarked that she had to consider what the opportunity costs would be for getting into an arrangement with McDonald's. She pointed out, "I want to partner with vendors, but I feel that schools are not a place for you to market your products."

### **Chapter Summary**

This chapter presented results of the evaluations of 20 local wellness policies' based on a rubric reported third person narratives generated from eight in-depth interviews. Results from the rubric evaluations were presented for each of the five requirements for the local wellness policies, and mean scores were calculated. Background information, details of

experience with local wellness policies, and a reflection on policy implementation were included in the third person narratives.

A review of the data gathered for the study yielded three themes that correspond with the three initial areas of focus identified by this research: (a) implementation of local wellness policies, (b) the alteration of school meals, and (c) the promotion of wellness values. These themes will be discussed in greater detail in the next chapter. The objective of the next chapter is to analyze the data sets within the context of these three themes.

## Chapter 5

### **Analysis and Recommendations for Research, Policy, and Practice**

This chapter will analyze the data collected during this study. The chapter will begin with a discussion of the local wellness policies of 20 Arizona school districts. The analysis is based on information gathered while using a rubric to score the policies. The eight qualitative interviews conducted during the research portion of the study will also be discussed. Information gathered from the interviews will be used to answer the research questions as well as highlight other pertinent information.

The qualitative interviews are used as the main data source for the following analysis. However, the quantitative information will be used to guide the portion of the analysis on assessing to what extent the local wellness policies meet the guidelines of the Child Nutrition and WIC Reauthorization Act of 2004. Coding of the transcripts of the standardized open-ended interviews resulted in three themes that correspond with the three initial areas of focus identified by this research. The discovery is reported in the following:

1. Implementation of local wellness policies
  - a. Most local wellness policies researched during this study, as written, do meet the guidelines of the Child Nutrition and WIC Reauthorization Act of 2004.
  - b. Local school personnel have similar understandings of the concept of wellness as their in-district and out of district counterparts.



- c. Individuals have varying understandings of the guidelines within the local wellness policies that they should follow.
- 2. Alteration of school meals
  - a. The federally mandated local wellness policy has changed meals served within these school campuses within two metropolitan school districts in Arizona. The nature of the changes were in the configuration of items on school menus on a weekly basis, the alteration of individual food items, the removal of food items from school menus, and the methods of preparation.
- 3. Promotion of wellness values
  - a. Wellness values are promoted differently within the two school districts.
    - i. The Kino Elementary School District approaches wellness through an employee-focused approach by establishing a system to reward employees for participating in healthy habits.
    - ii. The Clearwater Elementary School District attitude towards wellness is similar throughout the district; however, there is not a unified approach to implementing the policy.

**Examination of Rubric-based Evaluation Regarding Implementation of Local Wellness Policies**

Most of the school districts' local wellness policies analyzed during this research study met the guidelines set forth in the Child Nutrition and

WIC Reauthorization Act of 2004. Eight-five percent of the school districts whose policies were evaluated based on a review of online sources either met or exceeded the requirements set forth in the policy. All of the policies were evaluated through a Likert scale rubric.

Differences in policies resided in the wording that was used within the policy. The majority of the policies had identical wording because they utilized the ASBA's standard policy. However, those policies that exceeded the expectations, as evaluated by the rubric, did so due to the specificity of their wording. In particular, there were differences in wording regarding evidence of parents, students, school food authority representatives, school administrators, school board, and that the public contributed to the development of the school wellness policy. Policies that exceeded expectations named the individuals who contributed to the creation of the policy and identified their role. In contrast, policies that did not meet the expectations did not include information about who would or did create the wellness policy.

Policies that exceed the expectations not only addressed the required components, but also added additional components to the required guidelines. For instance, School District 5 added a philosophy related to wellness by stating in their local wellness policy that they "promote healthy schools by supporting wellness, good nutrition, and physical activity as part of the total school environment." This district also specified that adequate time would be allotted for school meals, and if food was used as an incentive,

teachers were encouraged to adhere to the District Wellness Policy Standards. None of the other policies reviewed in this study addressed the issue of food as an incentive.

School District 6, which also exceeded expectations according to their score, had many additions to their policy as well. This district included food and beverage guidelines in their policy. They also added requirements pertaining to the qualifications of the individuals providing nutrition education. The local wellness policy of School District 6 stated, “staff who provide nutrition education (will) have appropriate training.” Statements such as this were absent from all other policies that were examined.

Some of the districts did not meet the expectations as set forth in the rubric due to the absence of policy requirements. Most notably, the regulation (RA) pertaining to the local wellness policy was nonexistent on the ASBA website for many districts. The absence of the regulations did not allow for an explanation of how the policy would be executed or adhered to, resulting in a low overall score on the rubric.

An example of the effect that the absence of the RA policies can have on the overall policy when scored on the Likert scale rubric is presented in the following examples. School Districts 3, 17, and 18 only posted their JL wellness policy online. The JL policies contained simplified and broad language and lacked any type of specific goals related to wellness. The lack of goals resulted in low rubric scores for these districts under requirement A, which referred to the inclusion of goals for nutrition education, physical

activity, and other activities at the school level that promote student health and wellness. The low score on requirement A contributed to the overall low score of these three districts on the scoring rubric, thus classifying them as not meeting expectations.

A majority of the school districts included goals in their local wellness policies. School District 8 had a separate regulation dedicated to physical activity goals. For example, School District 8 had a goal to include physical education as an essential element of each school's instructional environment by providing "the opportunity for all students to develop the skills and knowledge necessary to participate in a lifetime of healthful physical activity" (local wellness policy, District 8). School District 8 also stated that students would be involved in physical activity at least 50% of the time while in physical education classes. While these goals lack a specific measurement tool for the goals, the district attempted to include overarching goals, thus positively affecting their score based on the rubric.

School districts also differed in their approach to formal accountability and measurement of their local wellness policies. The measurement was most often stated as a report given by the school principals to the superintendent. Some policies, such as policies for Districts 3, 4, 5, 17, and 18, did not identify school principals as reporters of the adherence to the local wellness policy. School Districts 3, 17, and 18 identified the superintendent as the designated policy monitor. It should be

restated that all three of these districts were evaluated and scored as not meeting the expectations as set forth in the Likert scale rubric.

School Districts 4 and 5 both designated a wellness committee to measure the monitor the wellness policy. It should also be mentioned that both of these school districts scored as exceeding expectations on the Likert scale rubric. Therefore, it can be concluded that the districts that had specific persons designated to monitor their policies surpassed nearby districts in regards to policy development.

Most school districts referenced a yearly measurement of their policy. School Districts 3, 5, 17, and 18 contained different timelines on measurement, or did not include timelines at all. School District 5's local wellness policy obligated their wellness committee to "evaluate policy progress, serving as a resource for schools, and revising the policy as necessary," a minimum of two times annually (Local wellness policy, District 5). School District 3 required policy evaluation every three years, while School Districts 17 and 18 contained no mention of a requirement related to a specified frequency of evaluation. These findings indicate that specified timelines are an integral component to policy development and execution, based on the overall scores of districts 17 and 18 on the Likert rubric.

The data gathered through the scoring of 20 school districts' local wellness policies showed that most of the policies met the objectives set forth in the Child Nutrition and WIC Reauthorization Act of 2004. However, the 15% of school district's local wellness polices that did not meet the

expectations failed due to the lack of specificity in policy wording. The policies that did not meet expectations also lacked a set method of evaluation.

### **Examination of Interview Data**

**Local school personnel understanding.** Local school personnel have similar understandings of the concept of wellness when compared to their in-district and out-of-district counterparts. The concept of wellness had a similar overarching theme in all of the interviews conducted. The school personnel included in these interviews believed that wellness is a broad concept that affects more than one area of a person's life.

Patricia Peterson, school principal in CESD, viewed wellness as part of the whole picture of a complete person. She believed that wellness meant taking care of oneself "physically, mentally and emotionally." Kelly Martin, cafeteria manager for CESD, viewed wellness as a balance of eating right and exercising. Natalie Wilson, the Director of Child Nutrition for KESD, had a similar definition when she referred to wellness as a lifestyle. She stated that wellness was "a combination of being physically active and nutritionally educated." Ramona Shepard, Director of Food Services for CESD, described wellness as allowing the body to function at its optimum level, and allowing your brain to concentrate. Although these definitions vary slightly in their rhetoric, they are all predicated on the notion that wellness is not a stand-alone concept. Each person interviewed felt that wellness impacted many

areas of a person's life, and therefore should be considered an important piece to a person's well being.

In addition to the interviewees holding similar notions of wellness, they all believed their concept of wellness aligned with their district's concept of wellness. Ms. Wilson stated that her view of wellness paralleled the definition that her KESD had. She was grateful for this and commented that it was an all-encompassing effort and she could not perform her job without the support of the school district. Patricia Peterson also believed that her school district's view of wellness was similar to her own. She stated that schools "are trying to work with every child where they are as a whole child." This corresponds with her personal definition of wellness as being part of the whole picture.

From the data that was gathered, it can be presumed that key school personnel hold a similar understanding of the notion of wellness. However, in the course of the interviews it was discovered that, although they viewed wellness similarly, they did not hold parallel understandings of the local wellness policies or the reasoning behind practices in their districts.

**Varying understandings of guidelines.** Individuals have varying understandings of the guidelines they should follow within the local wellness policies. A variety of responses were received for questions about the school district's local wellness policy. The responses varied by the position that the person held within the school district and by the school district that the interviewee worked in. Both directors and superintendents within the school

districts held at least a basic understanding of their district's policy, although employees of KESD seemed to possess a better understanding of the policy and the components of it. Also, the employee's life experiences played a role in how they understood and brought the policy to life.

Both directors of nutrition programs had some knowledge of their district's local wellness policies. Ms. Wilson had knowledge of the policy and its components. She stated that she was familiar with the policy because she assisted in creating it in 2005 when she began working in her current role as Director of Child Nutrition. Ms. Shepard, Director of Food Services in CESD, stated that she was aware of the local wellness policy. She stated that the policy's basis on solid nutrition facts had assisted her in her role as Director of Food Services. Ms. Shepard stated that she was confident that the policy aided her department in creating menus with the appropriate nutrients. Ms. Shepard felt that the requirements "are going to gear us in the right direction to have healthy minds and bodies."

Ms. Rebecca Cooper, KESD Superintendent, was able to explain the adoption of local wellness policy and the district's timeline of implementation. Ms. Copper was also able to explain the reasoning behind how and why the policy was created. However, when questioned on specific details about changes that occurred to school meals due to the policy, Ms. Cooper stated, "I just don't know that level of detail."

Dr. Anthony Lugo, CESD Interim Superintendent, possessed vague knowledge of the policy. Dr. Lugo was aware that the school district's



wellness policy was “pretty generic at this time.” He planned to review the policy to see if the district could incorporate more items into it. Dr. Lugo had been in the interim position for two months at the time of the interview, which could explain a lack of knowledge of specific details.

Heidi Wagner, school principal in KESD, had some knowledge of the district’s local wellness policy. She was able to identify the policy as a generic policy that was used in a number of Arizona districts. Ms. Wagner also stated that the policy changed practices in Physical Education programs and serving practices in the cafeterias. She also referenced the use of computer systems to analyze menus. However, some site-level leaders were not as knowledgeable about the policy. Ms. Peterson, school principal in CESD, was only able to cite a few changes that occurred due to the local wellness policy. She cited guidelines and regulation in foods that had occurred since 2006, but Ms. Peterson stated that she was not aware of the policy itself.

Ms. Martin, Cafeteria Manager within CESD, was not familiar with the Child Nutrition and WIC Reauthorization Act of 2004 or the existence of a local wellness policy. On the other hand, she was knowledgeable on the topic of how school meals had changed in the last few years. She acknowledged that more fresh produced was served, meals were reduced in fat, and computer software was being used to plan menus.

Valeria Garcia, Child Nutrition Cafeteria Manager within KESD, was not aware of the district’s local wellness policy prior to the scheduling of the interview. Although she has worked in the district for 28 years, this was the

first time she had been exposed to regulations that related to her occupation. Ms. Garcia found the policy to be helpful and she was enthusiastic about sharing it with other cafeteria managers in her district.

Knowledge of the local wellness policies within the two school districts varied based on position held within the district. The two people within each district that possessed an understanding of the local wellness policy, in relation to food requirements, were the directors in charge of nutrition programs. These two people, Ms. Shepard and Ms. Wilson, contained an understanding of the requirements for regulations on school meals and the reasoning behind the requirements.

Other interviewees understood that there were regulations on school meals; however, they were not specifically aware why measurements were in place or how the policy was measured. The principals' awareness of the policies was one of the key findings in this research. In both KESD's and CESD's local wellness policies, the principals were identified as the person in charge of monitoring the policies' goals. KESD's local wellness policy stated, "in each school, the principal will ensure compliance with the established District-wide student wellness goals and will report on the school's compliance to the Superintendent." CESD's local wellness policy contained the exact same wording related to measurement. Their policy also contained bullet pointed items that would be reported to the school board. A few of the evaluation items are: evaluation of food services program, recommendations for policy revisions, assessment of school environment regarding student

wellness issues, and listing activities and programs that promote nutrition and physical activity. Perhaps the most interesting piece of this information was the principals' lack of awareness related to the policy. The principals were identified as the person in charge of monitoring these policies at the school sites; however, neither of the principals cited themselves as the individual in charge of monitoring progress. In fact, in KESD, the Director of Child Nutrition stated that she was in charge of monitoring the policy.

It can be presumed from the data gathered that key personnel within school districts were lacking both information and mechanisms for dissemination and collaboration on policy implementation. Information that seemed pertinent to certain job duties was not disseminated to employees. It is possible that employees were working in isolation or the information was not deemed important enough to warrant awareness among all parties.

The employees' personal experiences played a role in their interpretations of the policy guidelines. The school principal in CESD, Ms. Peterson, had a history of being a physical education teacher. When asked about recommendations for the wellness policy she responded that, "there can never be enough physical activity." Ms. Peterson felt strongly that physical education was a large component to the academic piece.

Ms. Wagner, school principal in KESD, also demonstrated ties between her earlier life and her present thoughts on wellness. She had access to large gardens with fresh fruits and vegetables while growing up. Ms. Wagner spoke of her thoughts on wellness as being a "really nice diet from a farmer's

market.” This was parallel to her opinions on the lack of fresh items in school meals. She held a disapproving notion of pre-packaged foods in schools and referred to them as “very negative.”

Dr. Lugo, superintendent in CESD, had previous experience with wellness that shaped his thoughts on wellness programs. Dr. Lugo was a former athlete who played college football at a state university. His history of involvement in physical activity has led him to value physical activity in schools. He understood that physical fitness was an important piece of the whole child and strove to keep physical education classes included within the school day.

The examples of how backgrounds informed opinions displays how social factors play a role in how individuals understood, evaluated and carried out their policy within their districts. It is difficult to separate a person’s personal experiences with their current actions. Thus, it can be concluded that one’s personal experience shapes how policies are acted out by individuals. The implications of conclusion are that policy implementation depends, not only on having a sound policy, but also on the actors involved.

**Changes in school meals.** The federally mandated local wellness policy had changed meals served within these school campuses within two metropolitan school districts in Arizona. The changes to school meals included the configuration of items on school menus on a weekly basis, the alteration of individual foods items, the removal of food items from school menus, and the methods of preparation.

The Child Nutrition and WIC Reauthorization Act of 2004 had changed the way school menus were constructed. Both KESD and CESD had begun creating menus under the NuMenus system. The NuMenus system allows school districts to evaluate food items on a weekly basis, instead of a daily basis. NuMenus is an option allowed in the USDA School Meals Initiative for Healthy Children. With NuMenus, a nutrient analysis of the menus is conducted and entered into a computer software program. Then, the state agency reviews the menus to ensure that the analysis is being done accurately. Both districts utilize the NutriKids software program.

Stakeholders who were interviewed seemed fond of the NutriKids and NuMenus systems. Ms. Wilson and Ms. Shepard stated that they enjoyed the system. Ms. Wilson referred to the system as “flexible.” One interviewee was not fond of the NuMenus system. Ms. Wagner stated that she disliked the analysis of meals via a software program. She felt that the food had shifted from whole foods to prepackaged foods to allow easy entry of food items into the software program. She described her view of the software program as “very, very negative” because the program allowed for “pretty lethal levels” of fat and sodium.

Individual food items have been altered due to the Child Nutrition and WIC Reauthorization Act of 2004. One of the most substantial changes was the addition of whole-wheat items to school meals. Both CESD and KESD had an increase of whole-wheat items. Some examples of whole-wheat items included in school meals in both districts were pancakes, bagels, tortillas, and

breeding on chicken nuggets and corndogs. All items prepared with slices of bread were changed to be made on whole-wheat bread.

Another addition to school menus was the addition of items with fiber. Ms. Martin commented that fiber was a huge part of the changes to school menus. In fact, Ms. Martin cited fiber as the reason behind many changes to school meals. She credited the addition of the salad bar to a requirement for an increase in fiber in school meals, and the addition of graham crackers. Ms. Shepard referenced the increase of fiber in cereals that her schools served.

The type of meat found in school meals also changed. Both school districts moved away from beef products in their entrées. Ms. Shepard and Ms. Wilson noted an increase in turkey and chicken products post-policy implementation. Ms. Shepard stated that their corndogs were made with chicken after the policy was implemented. She also noted that their submarine sandwiches were turkey instead of bologna. Ms. Wilson highlighted changes in entrées that would have traditionally been made with beef. The entrées that included turkey post-policy were sloppy joes, hotdogs, corndogs, breakfast sausage, and taco bowls. Ms. Wilson credited this change to a desire to use leaner meats to help fit into the meal requirements.

Items were removed from district menus in both districts. Butter was an item taken out of recipes. In KESD, butter is no longer used on toasted cheese sandwiches. Ms. Wilson stated that butter spray was used instead due to the high fat content in butter. Ms. Martin acknowledged the absence of

butter in recipes as well. She commented that butter was removed from the mixed vegetables.

Snack items were also altered. CESD replaced full fat chips with baked chips. They also discontinued the sale of Little Debbie cakes, ice-cream cones, and soda in vending machines. In addition, cookies and brownies were mentioned as items not included in meals any longer. The findings of this study that related to the reduction of snack items offered to students were similar to those discovered by Seo (2009) in his study. Seo's study also uncovered reductions in the amounts of junk food offered during mealtimes after the policy was implemented.

KESD took several items off of the menu as well. The sale of cakes and pastries during meal times stopped and juice was replaced with whole fruit. Super doughnuts and pancake syrup have been removed also. At the time of the study, the district also reported their intention to remove Jumpstart breakfasts, a prepackaged breakfast box containing a Pop-tart and sugared beverage from the menu as well.

According to interviewees, the Child Nutrition and WIC Reauthorization Act of 2004 altered the preparation methods for school meals. Ms. Wagner and Ms. Garcia both commented that school meals were no longer made from scratch in KESD. Ms. Wagner was unhappy about this change, citing a desire to have whole foods prepared from scratch in school cafeterias. She was dissatisfied with the pre-packaged food items that her students were eating and commented that they were not good foods for brain

activity. Ms. Garcia stated that she remembered when meals were created from scratch. However, she was pleased with the way meals were prepared after the implementation of the policy because she felt that it was better for the students' health. In contrast, Ms. Wilson described the meals in KESD as "fresh and prepared daily." This statement was the opposite of how Ms. Wagner and Ms. Garcia described the meal preparation within KESD. Based on the divergent responses, it can be concluded that there was a lack of agreement on food preparation within KESD. The parties involved did not agree on whether or not the changes to school meal preparation methods had been positive or negative.

Ms. Martin, Ms. Shepard, Ms. Peterson, and Dr. Lugo agreed on the meal preparation in CESD. They all stated that meals were prepared at base kitchens and then delivered to the schools on trucks. This method of preparation differed from pre-policy implementation when meals were cooked at each school. Ms. Martin credited budget issues to the changed in food preparation. All parties agreed that there had been an increase in the amount of pre-packaged foods served in cafeterias.

Seo (2009) found that food preparation practices were not substantially altered or improved due to local wellness policies. Seo cited compliance as the necessary reason behind any changes that he discovered. As Seo concluded, reasons beyond the ultimate goal of wellness affect food preparation practices. The same situation should be considered for the current study. For instance, one could conclude that the reason for the



changes to food preparation uncovered during this research study may also have been related to budget concerns, and not always entirely related to the goal of wellness.

Overall, school meals have been altered since 2006 when the Child Nutrition and WIC Reauthorization Act of 2004 was launched. Changes were made to the way menu items were configured and analyzed. Also, individual food items were altered or removed from school meals. Lastly, the methods of food preparation also changed. It is not clear that all of the changes have been made with the goal of wellness in mind. However, it is clear that changes have occurred in school meals.

### **Promotion of Wellness Values**

Wellness values are promoted differently within the two school districts. KESD approached wellness primarily through an employee focus. CESD seemed to lack a united front on wellness. Each of these approaches is explained in more detail below.

KESD approached wellness through a focus on employees. They began an initiative through their health care provider to provide incentive programs for employees called WellStyles. Ms. Cooper, Ms. Wilson, and Ms. Wagner referenced the employee focus during their interviews. The acknowledgement of the employee focus by three out of four interviewees displays evidence of a united focus on wellness.

Ms. Cooper had a “big picture” in mind in regards to wellness; that is, she viewed her role in wellness as the person who would motivate people to

become role models for their students. Ms. Cooper's goal was to use the employees as role models for the students in the district. In addition, Ms. Wagner stated that her employees are role models of wellness for their students. These stances exhibit a shared focus on district-wide wellness.

CESD lacked a solid focus on wellness. All of the individuals held a similar definition and approach to wellness; however, a district-wide, common approach could not be identified. The employees interviewed within CESD seemed to understand their individual role in promoting wellness. Perhaps a cooperative effort could benefit the district in the promotion of wellness values and consequently have a positive impact on students' well being.

### **Recommendations for Research, Local Policy, and Practice**

The intent of this research study was to discover the impact that local wellness polices have had on school meals. This information was researched through the inquiry questions pertaining to the implementation of local wellness policies, changes in school meals, and questions regarding the concept of wellness within the perspective school districts.

It was discovered that local wellness polices have altered the way school meals were configured. These changes occurred in the form of items within the school menus and additions and removal of food items to school meals. However, the changes were not necessarily viewed as positive changes. Seo (2009) discovered similar findings in his research. Seo (2009) found that food preparation practices were not substantially altered or

improved due to local wellness policies. He cited the main adjustments to food preparation practices were in the type of dairy products being used in meals. Because of only minor adjustments made by schools, Seo (2009) pointed out that the schools' approaches might be "reactive instead of proactive, focusing on compliance with law rather than in improving students' diet and health" (p. 169). The data generated in this study suggests a parallel motive.

The study also discovered that a majority of the local wellness polices researched for this study met at least the minimum federal requirements put in place for the Child Nutrition and WIC Reauthorization Act of 2004. The scholarly literature coincides with the findings in this research study. Researchers have found that most states and districts they investigated have begun to implement wellness policies (Carr et al., 2008; Longley & Sneed, 2009; Moag-Stahlberg et al., 2008; Metos & Nanney, 2007; SNA, 2007).

In addition, it was learned that individuals within the same school districts had varying understandings of the guidelines within the local wellness polices that they were required to follow. These findings correspond with scholarly research, which also discovered an absence of support felt by school administrators related to wellness polices (Carr et al., 2008). If key school personnel in this study were given support in the implementation of their local wellness policy, perhaps there would not have been such a diverse understanding of the policy within these two districts.

This study fills in the research gaps by evaluating the extent to which key personnel understand their policies.

### **Contributions to Scholarship and Recommendations for Further Research**

Recommendations for further research have been considered for the area of study. There is ample opportunity to explore other facets of wellness policies in schools or how nutrition is handled in school districts across the country. The changes that will occur due to new legislation, the roles of vendors in school meal product creation, the USDA's role in school meal policies, and a replicated study with differing demographics are suggested as possibilities for further research. Such studies do not only aid educational administrators, and potentially legislative representatives, but also contribute to a more well-rounded view of how to effectively improve the health and wellness of students.

President Obama signed Senate Bill 3307 into law on December 13, 2010. This bill is called the Healthy, Hunger-Free Kids Act of 2010. The act has multiple implications. Firstly, it gives the USDA the authority to set nutritional standards for all foods regularly sold in schools during the school day, including vending machines, the a la carte lunch lines, and school stores. Secondly, it also provides additional funding to schools that meet updated nutritional standards for federally subsidized lunches. At the time this study was written, there was no timeframe in place for implementation of this act. A potential future study would research the effect that the Healthy, Hunger-

Free Kids Act of 2010 will have on school meals. It would also be noteworthy to research if improved nutrition in school meals impacts student learning and achievement.

Another area that could benefit from further study is the role of vendors in the decision to offer certain products in school meals. The current study uncovered that vendors have reconfigured their food items to make sure they are within the guidelines set forth for school meals. The reconfiguration demonstrates the power that vendors have to alter products and keep them within the school walls. Currently, Domino's Pizza is working to establish a *Smart Slice* program with schools. This program would allow Domino's Pizza to be served more often in schools because Domino's Pizza is reconfiguring their pizza dough to be whole-grain pizza crust. Presently, Domino's Pizza is the most dominant fast-food chain in U.S. schools, with a 26% presence in all U.S. schools (SNA, 2009). Perhaps a further look should be taken into the vendors' role in school wellness and the power that vendors have over the school food market, especially since school age children will be the main consumers 15 years from now.

Additionally, a look into the USDA's role in school meals should be considered. The USDA's commodity program is the main supplier of food to schools in the United States. Also, the USDA will soon have the authority to set nutritional standards for all foods regularly sold in schools during the school day. The link between policy configuration and the USDA's role in

meals should be examined to evaluate the extent of control that the USDA has over school meals.

Another opportunity to future research pertains to study sample and demographic. The current study was conducted with two districts located in Arizona with similar demographics. The similarity of demographics allows the study to make comparisons between the two districts on a somewhat level scale. However, it presents a challenge when attempting to compare overall policy implementation on a larger scale. Additional research should be undertaken on a broader scale, across district demographics and geographic locations. An additional research study could be replicated in districts that vary geographically within the United States or have substantially differing demographics. This would allow comparisons to be drawn between districts regardless of region or the demographics of students served.

### **Recommendations for School Administration – Local Policy and Practice**

This study revealed several recommendations for administrators relating to local wellness policies. Recommendations for school administrators include establishing district-wide education, in the form of staff training, on the local wellness policy and the creation of a clear evaluation plan. It is also suggested that school administrators research becoming a member of a food cooperative, which had many benefits for one of the districts in the study.

If a school district wants to make an impact on students' health and wellness, all of the stakeholders need to understand the policy and be trained and prepared to implement it. This study uncovered evidence that employees are only aware of the specific responsibilities associated with their position and how those responsibilities are to be carried out. This creates isolation from other people working towards the same goal and impairs greater success. It is important for employees to understand how their role impacts other areas within the district. It is especially important that a principal should be able to identify policies that are being implemented in their schools if the policy designates them as the person in charge of monitoring the policy.

Cafeteria managers, too, need to understand the policies behind why school meals are configured the way they are. It is not acceptable for them to simply abide by the guidelines. A greater positive impact could be made on school meals if the cafeteria managers understood the policies that are in place, particularly because they are on the front lines of how the meal portion of the policy is being carried out. Greater involvement and less isolation would give cafeteria managers the knowledge to stand up for what is in the best interest of the students and student wellness. If no one except the director of nutrition is aware of why school meals are being changed, how can schools expect to have any support with making changes to meals in schools?

The findings from this study made it evident that clear measurement plans are not in place. Neither district had a clear-cut way of evaluating policy implementation. Also, neither district had a clear plan specifying who was in charge of measurement. During the interviews, it was mentioned that plans were created in a way that would allow flexibility. Participants also stated that the policies did not give a complete picture of what was happening within the districts. Therefore, it is important to ask how the effect the programs are having is monitored if there is no concrete way to report or identify what is taking place? Thus, a clear method of measurement needs to be established, even at the cost of losing some flexibility in implementation.

The final suggestion is that school districts research becoming a member of a food cooperative. Personnel in KESD mentioned that the district was a member of the Mohave County Cooperative. Membership in this cooperative has allowed KESD, which offered all of its meals free to students regardless of their qualifications for free or reduced lunches, to have access to whole-wheat food items while keeping costs down. Until healthy foods are easy accessible and affordable for all school districts, joining a food cooperative may be a good and feasible alternative.

### **Implications**

The primary implication of this study is the need for greater awareness of wellness concepts, policies, and sound implementation practices. These research results should open the public's eyes to what



schools are serving students for one of the most important meals of their day. Yes, steps have been taken toward offering healthier food items in our cafeterias. In years past, schools may not have considered serving hummus to students during lunchtime, as KESD did. However, pre-packaged foods are still being served because of their convenience and their compliance with the food guidelines. Although schools are making strides toward healthier school meals, it is important to note that schools have, as Ms. Shepard stated, “a long, long way to go”.

The interviews conducted during this study revealed a general consensus that schools are more focused on academics than on the whole child. Ms. Peterson reported that some of her district’s after-school programs had to be changed because the district needed to spend money on different areas. Dr. Lugo stated that it was difficult to run wellness programs because academics and state mandated tests are on everyone’s mind. Ms. Cooper commented that in the current era of accountability it is difficult. Ms. Cooper stated that instructional time could not be taken away because everyone is under pressure to ensure they have the “academic piece in place.” Basically, both Dr. Lugo and Ms. Cooper were aware of the stress that the state tests put on our teachers, and understand that this stress made it difficult to instruct on health components during the school day.

As Weaver-Hightower (2011) wrote, “It is time to take school food seriously, to consider how much depends on this most human, embodied part of the school day” (p. 20). Weaver-Hightower stressed the importance

of research in the area of school food. He contended that scholars have the opportunity to improve studies on almost any subject by investing attention into what happens in the school lunchroom. I agree with Weaver-Hightower and contend that if we continue to increase academic rigors without considering and supplying the proper fuel for our students, we will not get very far at all.

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APPENDIX A

CHILD NUTRITION AND WIC REAUTHORIZATION ACT OF 2004



**Section 204 of Public Law 108-265—June 30, 2004**

Child Nutrition and WIC Reauthorization Act of 2004

**SEC. 204 LOCAL WELLNESS POLICY**

(a) IN GENERAL - Not later than the first day of the school year beginning after June 30, 2006, each local education agency participating in a program authorized by the Richard B. Russell National School Lunch Act (42 U.S.C.1751 et seq.) or the Child Nutrition Act of 1966 (42 U.S.C. 1771 et seq.) shall establish a local school wellness policy for schools under the local educational agency that, at a minimum—

- 1) Includes goals for nutrition education, physical activity and other school- based activities that are designed to promote student wellness in a manner that the local educational agency determines is appropriate;
- 2) Includes nutrition guidelines selected by the local educational agency for all foods available on each school campus under the local educational agency during the school day with the objectives of promoting student health and reducing childhood obesity;
- 3) Provides an assurance that guidelines for reimbursable school meals shall not be less restrictive than regulations and guidance issued by the Secretary of Agriculture pursuant to subsections (a) and (b) of section 10 of the Child Nutrition Act (42 U.S.C. 1779) and section 9(f)(1) and 17(a) of the Richard B Russell National School Lunch Act (42 U.S.C. 1758(f)(1), 1766(a)), as those regulations and guidance apply to schools;
- 4) Establishes a plan for measuring implementation of the local wellness

policy, including designation of 1 or more persons within the local educational agency or at each school, as appropriate, charged with operational responsibility for ensuring that the school meets the local wellness policy; and

5) Involves parents, students, and representatives of the school food authority, the school board, school administrators, and the public in the development of the school wellness policy.

(b) TECHNICAL ASSISTANCE AND BEST PRACTICES. - (1) IN GENERAL. - The Secretary, in coordination with the Secretary of Education and in consultation with the Secretary of Health and Human Services, acting through the Centers for Disease Control and Prevention, shall make available to local educational agencies, school food authorities, and State educational agencies, on request, information and technical assistance for use in—

(A) Establishing healthy school nutrition environments; (B) Reducing childhood obesity; and

(C) Preventing diet-related chronic diseases.

(2) CONTENT. - Technical assistance provided by the Secretary under this subsection shall— (A) Include relevant and applicable examples of schools and local educational agencies that have taken steps to offer healthy options for foods sold or served in schools; (B) Include such other technical assistance as is required to carry out the goals of promoting sound nutrition and establishing healthy school nutrition environments that are consistent with this section;

(C) Be provided in such a manner as to be consistent with the specific needs and requirements of local educational agencies; and (D) Be for guidance purposes only and not be construed as binding or as a mandate to schools, local educational agencies, school food authorities, or State educational agencies.

(3) FUNDING. – (A) IN GENERAL. – On July 1, 2006, out of any funds in the Treasury not otherwise appropriated, the Secretary of the Treasury shall transfer to the Secretary of Agriculture to carry out this subsection \$4,000,000, to remain available until September 30, 2009. (B) RECEIPT AND ACCEPTANCE. – The Secretary shall be entitled to receive, shall accept, and shall use to carry out this subsection the funds transferred under subparagraph (A), without further appropriation.

APPENDIX B  
PRIMARY INTERVIEW PROTOCOL

**The Impact of Local Wellness Policies on School Meals and Wellness in  
Public Schools**

Sara Crawford, Principal Investigator  
Arizona State University

**PRIMARY INTERVIEW PROTOCOL**

**Questions**

<p><b>Part 1: Background Information – Placing Participants’ Experience in Context</b></p> <ol style="list-style-type: none"><li>1. Name and job title?</li><li>2. School district?</li><li>3. How long have you worked in your current capacity?</li><li>4. Educational background?<ol style="list-style-type: none"><li>1. High school education?</li><li>2. College degree?<ol style="list-style-type: none"><li>i. What type of degree do you hold?</li><li>ii. Where did you attend college?</li></ol></li></ol></li><li>5. What do you know about the statistics relating to the increased rate of childhood obesity?</li><li>6. What were your own experiences with wellness and nutrition growing up? What have your experiences been with these concepts as a school practitioner/leader?</li><li>7. What was your experience with wellness growing up?</li><li>8. What were your family meals like?</li><li>9. What are your school meals like?</li><li>10. How would you describe your eating habits as a child?</li><li>11. What is your definition of wellness?</li><li>12. How does your definition relate to and fit into the school environment?</li><li>13. Has the Child Nutrition and WIC Reauthorization Act of 2004 alerted your perception of what school wellness is?</li></ol>
<p><b>Part 2: Details of Experience<sup>1</sup></b></p> <p>School Wellness Policies</p> <ol style="list-style-type: none"><li>1. What is your district’s local wellness policy?</li><li>2. How has the policy been implemented? Can you describe the history of the policy’s implementation in your district?</li></ol>

<sup>1</sup> The questions in this section may be supplemented with more specific questions from the Supplementary Interview Protocol that follows, depending on participants’ responses, to ensure that detailed information is obtained.

3. What does the policy “look like” in practice?
4. Which components of your district’s local wellness policy do you feel have been most successful at meeting the goals and objectives of your policy?
5. What have been some of the biggest challenges in implementing the policy?
6. Which components of your local wellness policy do you think have the most impact on student health? What evidence do you have to support this?
7. Which components do you feel do not have an impact on student health? What evidence do you have to support this?

#### School Meals and Menu

1. How has Child Nutrition and WIC Reauthorization Act of 2004 changed the meals you serve in your school feeding programs?
  - a. “I have breakfast and lunch menus from (insert school district name here) I would like you to...”
    - i. ...please identify items that have been added to the breakfast menu due to the Child Nutrition and WIC Reauthorization Act of 2004. Please list for me as many items as you can that have been removed from the breakfast menu as a result of the WIC reauthorization. For each item removed explain why, in nutritional terms, it was removed.
    - ii. ...please identify items that have been added to the lunch menu due to the Child Nutrition and WIC Reauthorization Act of 2004. Please list for me as many items as you can that have been removed from the breakfast menu as a result of the WIC reauthorization. For each item removed explain why, in nutritional terms, it was removed.

#### **Part 3: Reflection**

1. What are some positive reactions, if any, that parents have had in regards to the changes in school meals? Does any particular change stand out?
2. What are some negative reactions, if any, that parents have had in regards to the changes in school meals? Does any particular change stand out?
3. What are some positive reactions, if any, that students have had in regards to the changes in school meals? Does any particular change stand out?

4. What are some negative reactions, if any, that students have had in regards to the changes in school meals?
5. What, if any, changes do you plan on making to school meals in the future?  
Why?
6. What, if any, changes do you plan on making to school programs related to wellness in your schools in the future?  
Why?
7. Overall, do you believe the concept of “wellness” has changed in your district post-policy implementation? If so, can you describe some specific examples? If not, why not?
8. If you were to make recommendations for future policy development and implementation, what would they be?
9. Is there anything else you would like to add?

APPENDIX C  
SUPPLEMENTARY INTERVIEW PROTOCOL



## **The Impact of Local Wellness Policies on School Meals and Wellness in Public Schools**

Sara Crawford, Principal Investigator  
Arizona State University

### **SUPPLEMENTARY INTERVIEW PROTOCOL**

**DIRECTIONS FOR PARTICIPANTS:** Please answer the questions below relating to your district's local wellness policy prior to our in-person interview. Sara Crawford, who can be reached at (602) 317-7272, will collect your responses to these questions prior to the in-person interview.

#### **School Wellness Policies**

1. The Child Nutrition and WIC Reauthorization Act of 2004 states that school districts must include goals for nutrition education, physical activity, and other activities set forth at the school level that promote student health and the reduction of childhood obesity.
  - i. Does your district have written goals related to the guidelines for nutrition education?
    1. If so, what are they?
  - ii. Does your district have written goals related to the guidelines for physical activity?
    1. If so, what are they?
  - iii. Does your district have written goals related to the guidelines for other activities as written in the Child Nutrition and WIC Reauthorization Act of 2004?
    1. If so, what are they?
2. The Child Nutrition and WIC Reauthorization Act of 2004 states that school districts must include nutritional guidelines selected by the local educational agency for all foods available at each campus throughout the school day.
  - i. What nutritional guidelines does your school district use in its creation of school meals?
3. The Child Nutrition and WIC Reauthorization Act of 2004 states that all food items available on school campuses must include accompanying objectives that promote student health and the reduction of childhood obesity.
  - i. What are the objectives related to the promotion of students' health and the reduction of childhood obesity that your school district has created?

4. The Child Nutrition and WIC Reauthorization Act of 2004 states that a plan for measuring the implementation of the local wellness policy must be put in place.
  - i. Do you have a written evaluation plan? May I have a copy of it?
  - ii. How does your school district measure whether or not the local wellness policy has been successful at meeting to goals and objectives put forth in the policy?
  
5. The guidelines for measuring the implementation of the local wellness policy also states that one or more persons from the local education agency must be designated to aid in the measurement of the local wellness policy.
  - i. Do you have a person from your education agency that is designated to do this? What is that person's title?
  
6. The guidelines for creation of the local wellness policy states that parents, students, school authority representatives, school administrators, the school board, and the public must contribute to the development of the local wellness policy.
  - i. Who are the committee members that created your district's local wellness policy?
  
7. What specific changes, not mentioned previously, have been made in your schools due to the Child Nutrition and WIC Reauthorization Act of 2004?
  
8. Have you encountered any obstacles during the implementation of the Child Nutrition and WIC Reauthorization Act of 2004?
  - i. How have you dealt with these obstacles?

APPENDIX D

LOCAL WELLNESS POLICY RUBRIC

Federal Public Law (PL 108.265 Section 204) states that by the first day of the 2006 school year beginning after June 30, 2006, all schools must develop a local wellness policy that involves parents, students, a representative for the School Food Authority, school board, school administrators and the public. Local Education Authority (LEA) will establish a plan for measuring implementation of the local wellness policy.

**Does the local school wellness policy meet the requirements as put forth in Federal Public Law 108.265 Section 204?**

- Likert Scale Key:
- 1: The requirement is not mentioned in the policy.
  - 2: The requirement is briefly mentioned with no details.
  - 3: The requirement is mentioned with a few details about how the plan will be carried out.
  - 4: The requirement is mentioned and a plan for execution of the requirement is mentioned.
  - 5: The requirement is mentioned and a detailed plan for execution and evaluation of the requirement is described.

**District Name (LEA):** \_\_\_\_\_

Requirement	Included in Policy?	To what degree?	Evidence
Includes goals for nutrition education, physical activity, and other activities at the school level that promote student health and wellness.		1 2 3 4 5	
Includes nutrition guidelines selected by the local educational agency for all foods that are available at each campus during the school day.		1 2 3 4 5	

<p>Guidelines for reimbursable school meals are not less restrictive than the guidelines set forth by the Secretary of Agriculture's subsections (a) and (b) of section 10 of the Child Nutrition and WIC Reauthorization Act (42 U.S.C. 1779) and section 9(f)(1) and 17(a) of the Richard B Russell National School Lunch Act (42 U.S.C. 1758 (f)(1), 1766(a)).</p>		<p>1 2 3 4 5</p>	
<p>A plan for measuring the implementation of the local wellness policy is put in place, including designating one or more people from the local educational agency to ensure that the schools meet the local wellness policy.</p>		<p>1 2 3 4 5</p>	
<p>Evidence that parents, students, and school food authority representatives, school administrators, the school board, and the public contributed to the development of the school wellness policy.</p>		<p>1 2 3 4 5</p>	

APPENDIX E  
CONSENT FORM

## Local Wellness Policies' Impact on School Meals and School Wellness

Date November 18, 2010

Dear \_\_\_\_\_:

I am Sara S. Crawford, a graduate student under the direction of Professor Teresa L. McCarty Ph.D. in the Mary Lou Fulton College of Education Division of Educational Leadership and Policy Studies at Arizona State University. I am conducting a qualitative research study to examine Local wellness policies and how they are impacting school meals and wellness in schools. This data will be used in my dissertation.

I am inviting your participation, which will involve one 60 to 75 minute interview. You have the right not to answer any question, and to stop the interview at any time. Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, there will be no penalty

This study could have a positive impact on students. The data collected during this research study could be used in a way that would impact our students' health, well-being, and enhance their quality of life. There are no foreseeable risks or discomforts for your participation.

Your responses will be confidential. The results of this study may be used in reports, presentations, or publications but your name will not be used.

I would like to digitally record this interview. The interview will not be recorded without your permission. Please let me know if you do not want the interview to be taped; you also can change your mind after the interview starts, just let me know. The digital recording of the interview will be stored for up to 12 months, before they are erased from the hard drive in which they are stored.

If you have any questions concerning the research study, please contact me at XXX-XXX-XXXX or [XXXXXX@XXX.com](mailto:XXXXXX@XXX.com). If needed you can also contact my dissertation co-chair, Teresa L. McCarty, Ph.D. at: XXX-XXX-XXXX or [XXXXXX@XXX.edu](mailto:XXXXXX@XXX.edu). If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

Sara S. Crawford

APPENDIX F  
PERMISSION TO CONDUCT RESEARCH



Sara Crawford

October 20, 2010

Name

Date

Position

Phone

Research Project is about:

- ASU Class       MA Thesis       Doctoral Dissertation  
 Faculty Research       University Research       Other

**Title and Purpose:**

This qualitative study is intended to inquire whether or not School Wellness Policies have changed school meals, look into how school district personnel promote wellness within their school districts, and upon analysis of information gathered, examine how policies get made and transferred into the school setting.

This study addresses the following questions:

1. How is the Local Wellness Policy being implemented within the context of these school districts?
  - a. Do the Local Wellness Policies, as written, meet the guidelines of the Child Nutrition and WIC Reauthorization Act of 2004?
  - b. Do the key personnel responsible for implementing the Local Wellness Policy know the guidelines that they should follow and how are the policies being implemented?
2. How has the federally mandated Local Wellness Policy changed meals served within school campuses in two metropolitan school districts in Arizona? If so, what is the nature of the changes?
3. How are these school districts promoting wellness values within their districts?
  - a. How do policies get created and transferred into the school setting?

**Departments, school or schools to participate:**

The semi-structured open-ended interviews will be conducted with the Food Service Director, District Superintendent, Cafeteria Manager, and Principal from your district.

**Communications with students, teachers and administrators will be conducted by:**

Telephone  Email  Written format  Site Visitations  Other

**Discuss instrumentation for data collection planned for this study:**

This qualitative research study examines the effect School Wellness Policies have had in two metropolitan school districts in Arizona. I would like the \_\_\_\_\_ district to be one for those

Policies will be reviewed, school menus will be collected and analyzed, and semi-structured, open-ended interviews will be conducted.

**Approximate number and grade levels of pupils to be involved:**

No students will be involved in this study.

**Approximate class time required per pupil:**

No class time from students will be required for this study.

**Approximate teacher/staff time required for data collection:**

Each interview will be approximately 45 to 60 minutes in length.

**How will this research benefit the Cartwright School District, students, teachers and community?**

The possible benefits of this research study could be the discovery of a method that would assist us in creating a positive environment related to health and wellness in your educational setting. Also, approaches to creating healthier school meals may be found, and the techniques revealed during this research study can be used as catalysts for improvement wellness in schools.

This study will also evaluate how Local Wellness Policies are being adhered to within your school district. This information can assist your district with evaluation of this policy.

**How will confidentiality be secured?**

The names of the school districts and school district personnel involved in this study will be kept confidential. All names will use pseudonyms.

**Deadline for completion:**

Research will need to be conducted by the conclusion of December 2010.

**Arrested for Crimes Involving Children:** Yes  No

**Arrest Record:** Yes  No

**If Yes Please Explain:**

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**Comments:**

I look forward to the possibility of conducting research within the Cartwright School District. I hope to assist the district with evaluation of School Wellness Policies.

I the undersigned attest to the aforementioned information as being true.

20, 2010

ate

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Send research request to:

Date 10-29-10 Approved  Disapproved \_\_\_\_\_

Signature: \_\_\_\_\_ At: \_\_\_\_\_ Comments: \_\_\_\_\_

*Approval indicated on this form is intended to grant to the researcher the opportunity to contact the appropriate personnel to gain their approval and support of this project.*

The Governing Board  
Board President

[Redacted]

Member

[Redacted]

Member

[Redacted]

Member

[Redacted]

Member

[Redacted]

Superintendent

[Redacted]

Asst. Superintendent of  
Business Services

[Redacted]

Asst. Superintendent of  
Curriculum and Instruction

[Redacted]

Executive Director of  
Human Resources

[Redacted]

December 3, 2010

Sara Crawford

[Redacted]

RE: Dissertation request: The Impact of Local Wellness Policies on School Meals and Wellness in Public Schools

Dear Ms. Crawford:

Thank you for your interest in the [Redacted].  
Our committee met, reviewed, and approved your application to conduct research in our district.

If necessary, per our district policies, Phoenix Elementary School District #1 reserves the right to cancel this approval in the best interests of the students and families of the district.

You may consider this approval letter as your permission to work with the schools in the district as outlined in your email dated November 18, 2010. [Redacted] Director of Child Nutrition will be your district contact; her number is [Redacted]. We look forward to your findings from your study.

Sincerely, [Redacted]

[Redacted]