THE QUALITY OF SCHOOL DISTRICT WELLNESS POLICIES IN OKLAHOMA

By

JESSICA L. BERG

Bachelor of Science in Dietetics

University of Vermont

Burlington, VT

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Thesis Approved:

Dr. Kevin Fink

Thesis Adviser

Dr. Nancy Betts

Dr. Deana Hildebrand

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Abstract: Federal laws requiring schools to develop local wellness policies have the potential to prevent childhood obesity by improving school nutrition and physical activity environments. School environments are of great importance because of the significant amount of time children spend at these institutions (Story, Nanney, & Schwartz, 2009). This study reviewed wellness policy language for 176 school districts in Oklahoma using the Wellness School Assessment Tool (WellSAT) and examined various district socio-demographic characteristics (Yale Rudd Center, 2013). Comparisons were examined between (1) policy compliance in conjunction with these mandated acts; and (2) the strength of the policy's wording related to wellness domains. Independent-samples t-tests, ANOVA, Kruskal-Wallis, and Mann-Whitney U tests were run to compare overall and subsection WellSAT strength and comprehensiveness scores with academic status, free and reduced price meal eligibility, and geographic location. Mean overall WellSAT comprehensiveness was 44.96, while mean overall strength score was 22.92 on a scale of 0-100 points. Contrasting previous wellness policy research, there were no statistically significant differences in policy scores and free and reduced price meal eligibility, or geographic location. Districts with poor and exceptional academic status had statistically significantly stronger competitive foods statements than those with average academic status, and districts with poor academic status had significantly stronger and more comprehensive policies than those with average academic status. Although nutrition and physical activity are key factors in decreasing childhood obesity, lack of strong wording and policy comprehensiveness suggest that Oklahoma school policies can be improved. Local and state policy makers may have an opportunity to improve school environments by developing stricter minimum nutrition and physical activity policy statements and using stronger language for policy goals.

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CHAPTER I

INTRODUCTION

The health status of children in the United States is on a decline. Childhood obesity prevalence rates have spiked, turning a public health concern into an epidemic due to the negative physical, mental, and social health risks associated with obesity as well as the additional strain put on the healthcare system (Robert Wood Johnson Foundation, 2012; Daniels et al., 2005). Although claimed an epidemic, childhood obesity may be caused in part by modifiable lifestyle habits such as inadequate physical activity and improper nutrition (Center for Disease Control and Prevention [CDC], 2014a).

Physical activity and nutrition environments are beginning to be recognized by public health officials as important areas for the development of childhood obesity prevention efforts. Schools have recently been identified as paramount locations for wellness promotion and obesity prevention interventions due to the number of children in attendance, as well as the significant amount of time spent at these institutions. Intense contact with youth puts schools in the unique position to influence the nutrition, physical activity, and health status of these students (Story, Nanney, & Schwartz, 2009).

In response to the potential impact that schools have on children and growing childhood obesity rates, the federal government has issued two acts designed to improve the health and wellness environment of schools, as well as to educate youth about healthy living. These acts mandate that schools develop local wellness policies in part focused on nutrition, wellness, and physical activity. The Child Nutrition and Women, Infants, and Children (WIC) Reauthorization Act of 2004 (CNRA, PL 108-265, Section 204; U.S. House of Representatives, 2004), was the first of its kind requiring schools that participate in the National School Lunch Program (NSLP) or who received federal funds for the reimbursement of school meals to create wellness goals in a written policy form. The second federal act, the Healthy, Hunger-Free Kids Act of 2010 (HHFKA, Public Law 111–296) was developed to strengthen the WIC Reauthorization Act, as well as to strengthen existing policies by adding additional wellness policy requirements, in regards to increased public participation, transparency of wellness policies, and implementation, as well as strengthening nutrition standards of school meals.

Although schools responded well to this by primarily developing a wellness policy; language, content, and implementation of these policies varies significantly, as specific minimum standards have not been set (Story et al., 2009). Content variability and strength of policy wording in school wellness policies may create problems for public health officials in their efforts to understand the efficacy of the development and implementation of school wellness policies on youth obesogenic behaviors and weight status.

Many schools may have developed wellness policies, but there remains a dearth of information and systematic analyses on policy quality and content. A Chicago-based

research group has followed school wellness policy development on a national level each year since the WIC Reauthorization Act went into effect (Bridging the Gap, 2013); while more recently a few research teams have begun to evaluate local school district wellness policies within individual states.

At the time of this study, there were no systematic statewide evaluations completed of school district wellness policies in the state of Oklahoma. Therefore, the goal of this research study was to first evaluate the status of school district wellness policy development across Oklahoma, as well as to establish baseline scores in regards to the strength of policy wording and the comprehensiveness of the policy related to the aforementioned federal acts. Secondary goals were to examine potential comparisons between these scores and socio-demographic variables including: district geographic location (rural versus urban), district academic status, and district socio-economic status (as measured by percentage of students eligible for free or reduced price meals).

The assessment of school wellness policies in Oklahoma has the potential to impact policy makers, key community stakeholders, parents, as well as students across the state. Evaluation of school wellness policies will inform the Oklahoma State Department of Education of wellness policy status, and has the potential to guide the state in potentially revising and improving school wellness policy requirements in order to impact student health status, improve nutrition and physical activity practices, and decrease the prevalence of childhood obesity in Oklahoma.

CHAPTER II

LITERATURE REVIEW

The following section will examine the prevalence of childhood obesity, and will begin by investigating probable causes, as well as secondary health and societal concerns. This section will continue to identify high risk populations, examine the role of schools in childhood obesity prevention, and finally will discuss the current status of school wellness policies, which will lead to the purpose of this study.

Childhood Obesity: An Overview

Childhood obesity has become a significant public health concern in recent years for good reason. In the past 30 years the prevalence of obesity has doubled in children and more than quadrupled in adolescents (Ogden, Carroll, Kit, & Flegal, 2012). In 2012, childhood obesity affected about 17% (12.5 million children) aged 2-19 years old (Ogden et al., 2014). Obese children may not only experience a negative stigma attached to their weight status; they are more likely to experience negative effects on their health and wellbeing while growing up (Daniels et al., 2005; Office of the Surgeon General, 2010;

Li, Ford, Zhao, & Mokad, 2009; CDC, 2014a; Dietz, 2004). Obese children are also more likely to be overweight or obese as adults; which may in turn put additional strain on the healthcare system (Wang, Cheyen, Lee, & Lowry, 2008). With about 28% of adults in the United States being obese and an additional 35.4% overweight, the prevention of childhood obesity is a serious concern nationwide (Behavioral Risk Factor Surveillance System [BRFSS], 2013).

Obesity and overweight are often defined as a "caloric imbalance," or a situation in which more calories are being consumed than expended, leading to weight gain and potential health complications (Daniels et al., 2005). Overweight and obesity status in both children and adults is classified using body mass index (BMI), or weight in kilograms divided by height in meters squared. The weight status of children and adolescents aged 2-19 years old is classified using growth charts that assess age- and sex-specific percentiles for BMI, while adult obesity is classified differently (Barlow and the Expert Committee, 2007). Differences among overweight and obesity assessment between children and adults is due to the changing body compositions of both boys and girls as they age, whereas adult body composition remains relatively constant. An overweight youth is defined as having a BMI at or above the 85th percentile, but below the 95th percentile, while an obese youth is considered as having a BMI greater than or equal to the 95th percentile for youth of the same age and sex (Barlow and the Expert Committee, 2007). The use of BMIs may provide information on weight and height ratios, but may also indicate potential health risks amongst children and adults.

An overweight or obese child may be at a greater health risk for various chronic diseases when compared to normal weight children. In a population-based study of obese

youth between 5-17 years old, 70% had at least one risk factor for cardiovascular disease such as high blood pressure or high cholesterol (Freedman, Zuguo, Srinivasan, Berenson, & Dietz, 2007). Youth obesity has also been associated with other health concerns such as pre-diabetes, sleep apnea, breathing and joint problems, social and psychological discomfort, and poor self-esteem (Daniels et al., 2005; Office of the Surgeon General, 2010; Li et al., 2009; CDC, 2011a; Dietz, 2004).

Childhood obesity-related health risks are not the only concern; their weight status may follow them into adulthood. Wang and colleagues (2008) predicted that among 16-17 year old youth, 80% of obese boys and 92% of obese girls will become obese adults; while only 21% of their peers who are not overweight or obese will face adulthood obesity (Wang et al., 2008). The link between child and adulthood obesity also may increase the severity of adulthood obesity, as well as the risk of developing adulthood obesity related health conditions such as osteoarthritis, heart disease and type 2 diabetes (Wang et al., 2008; Freedman et al., 2007; Office of the Surgeon General, 2010).

On top of individual health risks, the treatment of obesity and obesity-related health conditions in the United States amounts to billions of dollars per year, putting significant pressure on an already strained healthcare system (Cawley & Meyerhoefer, 2012). One estimate in 2005 put United States spending on obesity at about $190 billion, which accounted for approximately 21% of health care costs (Cawley & Meyerhoefer, 2012). Obesity-related health care costs are expected to rise from $48 billion to $66 billion per year by 2030 (Trust for America's Health [TFAH], 2012a). Cawley & Meyerhoefer (2012) also estimated that the per capita medical spending of an obese individual was $2,741 higher than a non-obese individual. Childhood obesity itself is

estimated to account for $14.1 billion in direct costs. Hospitalization of youth with obesity-related conditions have risen from $125.9 million in 2001 to $237.6 million in 2005, as measured in 2005 dollars (Trasande & Chatterjee, 2009). Clearly, obesity-related health risks and the resulting economic and societal burdens demonstrate the need to reverse increasing trends of childhood and adulthood obesity locally and nationwide.

In addition to being a national problem, rates of childhood obesity haven risen dramatically in Oklahoma. Rates of overweight and obesity in Oklahoma have increased dramatically over the past fifteen years and are higher when compared to the United States national average. A report released by the TFAH and the Robert Wood Johnson Foundation (RWJF, 2011), reported that fifteen years ago Oklahoma was ranked as the twelfth least obese state, however a report released in August, 2014 revealed that Oklahoma is currently the seventh most obese state in the United States, with about 32.5% of its population classified as obese (TFAH & RWJF, 2014). Fifteen years ago the percentage of Oklahomans who were either overweight or obese was 51.3%, today the combined rate of overweight and obesity is 67.1%; making Oklahoma a state with one of the fastest growing rates of obesity in the United States (TFAH, 2013; TFAH, 2011). If Oklahomans continue to live their current lifestyles, the state is projected to have obesity rates (not including those who are overweight) above 60% by 2030 and a ranking as the second most obese state in the nation (TFAH, 2012b). Childhood obesity rates are also of concern; current childhood obesity rates in Oklahoma for youth aged 10-17 years old hover at 17.4% (TFAH & RWJF, 2014).

High rates of obesity in Oklahoma may be a possible contributor to the disease prevalence in the state. When compared to the national average for obesity-related

diseases such as diabetes (and associated deaths), heart disease deaths, and cerebrovascular disease deaths, Oklahoma consistently ranks higher, indicating higher disease rates than average (Oklahoma State Department of Health, 2011). Disturbingly, the Trust for America's Health (2012) reports that over the course of the next 20 years in Oklahoma: "obesity could contribute to 512,801 new cases of type 2 diabetes, 1,081,186 new cases of coronary heart disease and stroke, 969,830 new cases of hypertension, 620,784 new cases of arthritis, and 147,073 new cases of obesity-related cancer in Oklahoma" (TFAH, 2012a). The rise of obesity and new cases of obesity-related diseases in Oklahoma may similarly increase individual medical expenses, as well as continue to strain the entire healthcare system.

With the increasing rate of obesity, healthcare costs can be expected to rise as well. One report (2012) states that by 2030 obesity-related medical costs could climb by 10.8% in Oklahoma, a relatively low rate when compared nationwide. However, if body mass indices in Oklahoma were lowered by 5%, Oklahomans could potentially save 7.2% in health care costs; or a staggering $7.4 billion in savings by the year 2030 (TFAH, 2012a). This report continues to disclose that lowering obesity rates in Oklahoma could prevent the development of 110,522 new cases of type 2 diabetes, 92,323 new cases of coronary heart disease and stroke, 77,423 diagnoses of hypertension, 44,816 new cases of arthritis, and 7,128 new cases of obesity related cancer (TFAH, 2012a).

The rising prevalence of obesity, links between childhood and adult obesity, harmful obesity-associated disease risks, medical costs, and strain put on the healthcare system, clearly demonstrate that childhood obesity is a warranted public health concern, and that obesity prevention efforts are of urgent need. Prevention and intervention efforts

geared toward youth and children continue to be examined by government officials, public health experts, and other key stakeholders as a way to combat this growing epidemic.

Obesity is thought to be a preventable condition, one that is dependent on modifiable behavioral practices such as diet and physical activity and the surrounding (or built) environment (Freedman et al., 2005; Guo & Chumlea, 1999). High rates of obesity are often blamed on poor dietary practices, lack of physical activity, and built environments that are unsupportive of healthy living. For this reason, changing nutrition practices and physical activity habits, as well as the surrounding built environment in which we live, are often the focal points for obesity prevention interventions.

Dietary Practices

The high prevalence of obesity in Oklahoma and the United States may be linked to poor dietary practices such as low fruit and vegetable consumption. Fruits and vegetables can help with weight maintenance due to their low caloric content, high nutrient density, and high fiber content; which may enhance energy and cause satiety for longer time periods than "bad" foods such as those high in fat and sugar (Produce for a Better Health Foundation, 2014). Unfortunately, nationwide surveys indicate that many Americans may not be consuming enough fruit and vegetables per day and may instead be replacing these nutritious foods with unhealthy, calorically dense, non-nutrient rich foods.

In 2013, about one third of adolescents in the United States reported consuming fruit and/or vegetables less than one time per day, while adult consumption was similar (State Indicator Report, 2013). In 2014, 44% of Oklahoman adolescents reported

consuming less than one serving of fruit and/or vegetables per day; an increase from the previous year when a little over 40% reported doing so (Oklahoma State Department of Health, 2014; CDC: State Indicator Report, 2013). Alarmingly, as of this year (2014) these poor dietary habits in regards to fruit and vegetables rank Oklahoma as the state with the 44th lowest rate of vegetable consumption, and the next to lowest rate of fruit consumption nationwide (Oklahoma State Department of Health, 2014).

Although some youth nationwide and in Oklahoma are consuming adequate amounts of fruit and vegetables, it may be important to consider what types are being consumed and how they are prepared. Researchers at The Ohio State University (2004) analyzed two 24 hour recalls from the National Health and Nutrition Examination Survey (NHANES) and found that out of the 1 out of 10 Americans who reported consuming the recommended servings of fruit and vegetables, potatoes were the most consumed vegetable; especially among adolescents. Fried potatoes increased vegetable intake significantly, and constituted about 46% of total vegetable consumption. Dark green and orange vegetables accounted for only a small amount (8%) of vegetable intake (Kimmons, Gillespie, Seymour, Serdula, & Blanck, 2009).

Another study indicates that tomatoes and potatoes account for over half (51%) of vegetable intake among Americans. This study unveiled that most tomato consumption came from pasta sauces (24%) when prepared at home, and that pizza provided the largest amount (32%) of tomato consumption for foods eaten outside the home. Potato chips (28%) were the most common form of potatoes eaten at home, while fried potatoes (59%) were the most common form eaten outside the home (Lin & Morrison, 2002; Lin, Wendt, & Guthrie, 2013). This is alarming because although some vegetables may be

consumed in their raw form, oftentimes they are prepared with added calories by the addition of fat, as well as extra sodium, which may alter the nutritional value associated with vegetable consumption.

Despite some consumption of fruits and vegetables in various prepared forms, other foods are often more popular among American children and youth. Reedy & Krebs-Smith (2010) identified soda and sugar sweetened beverages, pizza, and dairy desserts as being some of the top six products that contribute to empty calories in youth diets today. Reedy et al. (2010) further identify adolescent food choice by stating that the top food source of energy for children and youth aged 2-18 years old are grain-based desserts such as cakes, cookies, donuts and pies. These foods are often high in sugar, fat, and calories, and provide little nutritional benefit; therefore, potentially leading to weight gain.

Although dietary practices may be one explanation for the obesity epidemic, there are many other contributors to this problem as well. Obesity is a complex problem, and it may be important to consider other causes of obesity such as physical activity and how the environment impacts these lifestyle habits in order to find methods of obesity prevention. Schools may provide the ideal location to direct these anti-obesity efforts, as oftentimes children eat at least one meal per day in a controlled food environment at these institutions, spend a significant amount of time there each day, and the fact that schools may also provide opportunities for physical activity (Story et al., 2009).

Physical Activity

Lack of physical activity may be another major contributor to the nationwide problem of childhood obesity. Physical activity is one of the most modifiable elements

of weight management and may have the largest impact on health (CDC, 2011b). Participation in physical activity may exert many positive health benefits for youth and adults alike; however, it is suggested that nationwide Americans are not engaging in adequate amounts of exercise and that this participation also appears to decline with age.

Physical activity has been linked to many health benefits including reduced risk of many chronic diseases, weight maintenance, improved mood, increased longevity, and improved academic standing in school (CDC, 2014a). Most professional organizations that strive to promote physical activity throughout the nation recommend between 150-225 minutes of instructional physical education per week, dependent on age (National Association for Sport and Physical Education [NASPE], n.d.). Adults 18 or older should engage in about 225 minutes per week, while youth and children should aim for 150 minutes per week. The CDC supplements this recommendation in that most of youth physical activity should be in the form of aerobic activity, but should also include muscle and bone strengthening activities three or more times per week (CDC, 2011c). In 2013, just over 15% of Oklahoman adults were getting the recommended daily amount of aerobic and muscle strengthening components of physical activity, slightly under the nationwide median of 20.4% (BRFSS, 2013b).

Schools may be considered institutions where physical activity can be provided; however, student engagement in school-based physical activity and physical education rates may be low. A survey of high schools students reported that just 27.1% had participated in at least 60 minutes per day of physical activity on all 7 days before the survey (YRBSS, 2014). Results of this survey revealed associations regarding age; about 64% of ninth-grade students attended physical education classes per week, while

only 25% of twelfth-grade students attended these weekly classes; with even fewer of these students attending daily physical education classes. This suggests that engagement in physical education declines by grade level and therefore age (Youth Risk Behavior Surveillance System, 2014).

The National Association for Sport and Physical Education (NASPE) is an organization that sets standards for best practices in quality physical education and physical activity, for students in kindergarten through twelfth grade. The aim of these standards is to allow individuals to gain the skills, knowledge, and confidence to become "physically literate" in order to maintain a lifetime of activity. NASPE recommends that a high-quality school-based physical activity program has four components including: the opportunity to learn, meaningful content, appropriate instruction, and regular, ongoing student and program assessment (NASPE, n.d.). Each component is made up of different elements in order to help students develop physical fitness, competence, understanding, as well as a positive attitude toward physically active lifestyles (NASPE, n.d.). These elements include that schools require all students to take physical education; a written, sequential curriculum for all grade levels based on state or national standards; physical activity not being withheld or assigned as punishment; and that stakeholders evaluate the effectiveness of the program; as well as many others (for full recommendations see *NASPE Resource Brief for Quality Physical Education,* Appendix A).

To further support the long-term benefits of physical activity, results from the Michigan Study of Adolescent Life Transitions (MSALT) suggest that physical activity at a young age may influence levels of activity over the course of a lifetime. Over 600 sixth graders were surveyed at different life stages in order to measure participation in

sports and fitness in childhood, adolescence, and young adulthood (12, 17, and 25 years old, respectively) and to assess engagement throughout these periods. At the conclusion of the study, adolescents who reported *medium* involvement in sports were 3.67 times more likely to participate in sports as young adults compared to those who reported *low* involvement, while adolescents who reported being *highly* involved in sports were 8 times more likely to be involved in sports as they grew up than those adolescents who reported *low* involvement. Findings from MSALT suggest that physical activity at a young age is a significant predictor of sports and fitness activity later in life (Perkins, Jacobs, Barber & Eccles, 2004). Similar findings on youth physical activity habits as they relate to adult leisure-time physical activity have been observed by Scandinavian research teams as well (Telama et al., 2005; Kjønniksen, Anderssen, & Wold, 2005).

Schools can encourage students to be active by providing opportunities and mandating participation in physical activities such as physical education, recess, gym class, organized sports, and other extracurricular activities. If schools were to take on the responsibility of ensuring students the opportunity to engage in a healthy and active lifestyle, they may be aiding in the development of life-long habits while also providing the nation's youth with physical, psychological, and academic health benefits. Due to the fact that certain populations may have less opportunities to engage in physical activity, and the status of unhealthy youth dietary practices, institutions such as schools may be in a unique position to offer healthful food and quality physical activity for all students.

High Risk Populations

Certain populations may be at higher risk of obesity than others based on socio-demographic variables, notably geographic location and socioeconomic status due to

unequal opportunities for physical activity, food insecurity, and unequal access to healthy food. Equal access to healthy food and physical activity opportunities and resources, as well as supportive environments to be able to lead healthy lifestyles should be a central consideration in obesity prevention efforts regardless of differences in these socio-demographic variables. In order to address these discrepancies nationwide, interventions should target institutions as a whole in order to impact the population at large.

Geographic location, or the size of a metropolitan area or town may be a partial determinant of weight status. Lutfiyya and colleagues (2007) allege that youth in rural areas are about 25% more likely to be overweight or obese than those in urban areas (OR =1.252), as well as have higher rates of comorbidities (Lutfiyya, Lipsky, Wisdom-Behounek, & Inpanbutr-Martinkus, 2007). This is of great concern because in the state of Oklahoma, 77% of Oklahoman counties and 65.2% of Oklahoman school districts are considered rural, making much of Oklahoma's population at an increased risk for overweight, obesity and associated comorbidities (OSDE, personal communication 2013). High poverty rates, low population density, and the need to travel greater distances to participate in physical activity may place these populations at a higher risk than their urban counterparts (Rural Assistance Center, 2012; Larson, Story, & Nelson, 2009; Wilcox, Castro, King, Housemann, & Brownson, 2000; Moore et al., 2010). Based on these discrepancies, school-based physical activity such as physical education and recess required by schools may sometimes be the only physical activity opportunities for rural youth.

Likewise, disparities exist among youth between socio-economic status and opportunities for physical activity participation. Low-income children are less likely to

engage in organized sport, and in school settings, are less likely to have recess and be physically active in their physical education classes (Duke et al., 2003; Barros et al., 2009; UCLA Center to Eliminate Health Disparities, 2009). In many instances, low-income youth have limited opportunities to be active due to fewer resources (e.g., parks, playgrounds), increased crime, higher traffic levels, unsafe playground equipment and low overall neighborhood safety (Estabrooks et al., 2003; Youth Media Campaign Longitudinal Survey, 2008; Gordon-Larsen et al., 2004; Neckerman et al., 2009; Suecoff et al., 1999). Due to these disparities in access to opportunities for physical activity, there is the possibility that school-based physical activity is the sole provider of activity for some youth. This emphasizes the vital role schools play in contributing to the physical activity of children to assist in preventing obesity and chronic disease, as these sometimes may be the only opportunities (Yousefian, Ziller, Swartz, & Hartley, 2009).

Rural and low-income communities already at risk of obesity are especially concerning because oftentimes these communities are burdened with poor food environments as well. A hunger and obesity "paradox" may exist in some low-income communities, as these families are more likely to suffer from food insecurity, as well as obesity, dependent on sex, race, and ethnicity (Center on Hunger and Poverty & Food Research and Action Center [FRAC], n.d.; Flegal, Carroll, Ogden, & Curtin, 2010). This "paradox" may be attributable not only to the previous discussion of the lack of physical activity opportunities and engagement, but also to limited access to healthy and affordable food in low-income neighborhoods, cycles of overeating and food deprivation, greater marketing exposure to unhealthy foods, and high levels of stress due to low-income (FRAC, 2011).

Two nationwide studies of more than 6,500 children found that food insecurity was positively correlated with overweight and obesity, while another study conducted in Massachusetts found that 2-to-5-year-old girls whose families participated in the food assistance program 'Women, Infants, and Children' had a 47% greater odds of being obese than those who came from food secure households (Townsend & Melgar-Quinonez, 2003; Casey et al., 2006; Metallinos-Katsaras, Sherry, & Kallio, 2009). In Oklahoma 1 in 4 children suffer with food insecurity likely due to low socioeconomic status, putting them at higher risk for obesity (Regional Food Bank of Oklahoma, 2010).

Different communities may also struggle with poor food environments, such as those considered food deserts. Food deserts are areas with limited access to fruits, vegetables, and other healthy foods that occur in rural, urban, and low income communities (USDA, n.d.). A rural area is considered a food desert if 25% or more residents live 10 or more miles from a grocery store (Blanchard & Lyson, 2006). Oklahoma consists of 77 counties; 32 of these are classified as food deserts (Blanchard & Lyson, 2006). Of these food deserts, nine are considered severe food deserts, or, areas where the *entire* population has limited access to food (Blanchard & Lyson, 2006). Limited access to healthy food may put the residents of these communities located in food deserts at greater risk for obesity due to lack of full service grocery stores, quality of produce and/or healthy food, and mark-ups on the price of healthy food when it is available.

Food deserts may occur in low-income neighborhoods, forcing residents to shop at convenience stores that may only offer unhealthy, processed food, and contribute to a poor diet (USDA, n.d.). Lack of full-service grocery stores in low-income neighborhoods

limits residential access to healthy food such as fruit, vegetables, low-fat dairy products, and whole grains (Beaulac et al., 2009; Larson et al., 2009). One study found that neighborhoods with better access to supermarkets tended to have healthier diets and a lower risk of obesity compared to those with poor access (Larson et al., 2009). Even more discouraging is that when fresh produce is available in these low-income neighborhoods, it is often expensive, and of poor quality, whereas high-calorie, less nutritious foods are much less expensive and more appealing to buyers (Drewnowski, 2010; Andreyeva et al., 2008; Zenk et al., 2006). Often, low-income households have a tight monetary budget and may lack the resources required to purchase and consume healthy, nutritious foods when available, therefore increasing their risk for obesity.

Socio-demographic disparities indicate a need to ensure that all youth and children have access to positive physical activity opportunities and healthful eating environments. For these reasons, enacting policies at institutions that youth and children are required to attend, such as schools, can serve as important locations in providing equal access to healthy, nutrient dense foods, and removing highly-caloric, non-nutrient dense foods. Schools can provide safe physical activity environments, opportunities for physical activity experiences, and can ensure youth participation in physical activity to maximize health benefits, improve nutritional status, fight against childhood obesity, and ameliorate socio-demographic disparities.

School Environment

The school environment has the potential to have profound health effects on the nation's youth due to the significant amount of time spent there. Over 95% of youth 5-17 years old are enrolled in schools, meaning more than 48 million students attend over

94,000 public elementary, middle, and secondary schools on a daily basis (Story et al., 2009; Frumkin, 2006). Children are in school for about 180 days in a year, for a minimum of 6 hours per day. Due to the substantial amount of time spent in school, this is the primary institution outside of home that has the most continuous, intensive contact and influence on children in the first two decades of life (Story, Kaphingst, & French, 2006; Story et al., 2009).

Not only is a momentous amount of time spent at school, children also consume a significant amount of food while at school, making this institution the ideal place for wellness and obesity prevention interventions. It has been reported that youth enrolled in school consume a proportion of between 35-50% of total daily calories through snacks, food brought from home, school lunch and breakfast programs, and other available school foods (Robert Wood Johnson Foundation, 2013). It is estimated that 95% of children consume at least one meal at school, thus making the school nutrition environment of great significance in regards to food practices (Briefel, Crepinsek, Cabili, Wilson, & Gleason, 2009).

A great deal of time is spent and calories are consumed at school; however, the school food environment many times may not be supportive of healthy eating. Schools can offer students full meals through school meal programs, as well as other foods not part of these meal programs; which may often be unhealthy. Efforts focused on the school environment have targeted the enhancement of nutritional standards of foods served through child nutrition programs, as well as putting greater restrictions on other foods sold to students during the school day such as through vending machines, school stores, and individually sold during meal times such as the *Healthy, Hunger-Free Kids*

Act. Targeting school meal programs as well as other foods sold at school have the potential to impact millions of children and their school food environment.

Schools may offer meals through the National School Lunch Program (NSLP) and the School Breakfast Program (SBP), which are two federally assisted school meal programs that provide full meals to students. The NSLP serves over 30 million participants nationwide, while the SBP serves an additional 10 million youth. In the fiscal year of 2012 there were over 446,000 participants in the NSLP in Oklahoma, as well as over 227,000 students in the School Breakfast Program. Last year in Oklahoma alone, these programs served over 130,000,000 meals to program participants (Food and Nutrition Service [FNS], 2013). By participating in the NSLP schools receive reimbursements in the form of cash subsidies and donated food commodities from the USDA for each meal they serve. In order to participate in the NSLP school meals must meet certain nutritional requirements, and offer free and reduced price lunches to students who qualify (Massachusetts Department of Education [MADOE], 2014).

Free and reduced price lunch eligibility is determined by family income. Family income equal to or below 130% of the poverty level qualify a child for free lunch, while family income between 130-185% qualify children for reduced price lunch. Students whose families earn above 185% of the poverty level pay full price (USDA, 2013a). Schools are reimbursed in different amounts depending on the number of free, reduced price, and full priced meals they serve (FNS, 2013). Clearly, many children participate in these meal programs, so developing rigorous nutrition standards for the foods that these meals contain may have a profound impact.

Although school lunches are required to meet federal nutrition requirements, the foods that are served and the preparation of these foods are left up to local school food authorities. At a minimum, school lunches must meet the Dietary Guidelines for Americans, by serving foods that contain no more than 30% of a student's calories from fat, and less than 10% from saturated fat when averaged over one week. Furthermore, school lunches must provide one-third of the Recommended Daily Allowances (RDA) of protein, Vitamin A, Vitamin C, iron, calcium, and calories, whereas school breakfasts must provide ¼ of the RDA for these vitamins and minerals (Oklahoma State Department of Education, 2014).

Unfortunately, foods served at school through the NSLP and child nutrition programs are not the only foods that may be available to students. Until July 1, 2014 schools were not able to sell foods of minimal nutritional value (FMNV), or those foods that provide less than 5% of the Recommended Daily Allowance of certain nutrients during meal times such as hard candy or fondant, but may sell other high calorie, competitive foods during these times (CDC, 2012a; OSDE, 2006). Competitive foods are any foods sold in schools outside of the NSLP. These foods may be sold a la carte in cafeterias, in school stores, as part of fundraisers, or in vending machines. Rarely do these foods consist of healthy options such as fruits and vegetables; they often offer little nutritional value and may be high in sugar, fat, and salt such as things like cookies and chips (Pliant, & the American Dietetic Association, 2006). Previous studies have demonstrated that increased availability of competitive foods is associated with reduced participation in the NSLP, decreased consumption of milk, fruit, and vegetables, and with an increased consumption of sugar-sweetened beverages, as well as other low-nutrient

dense choices (USDA, 2001; Fox, Gordan, Noagles, &Wilson, 2009; Fox, Dodd, Wilson, & Gleason, 2009). To help address these issues the Healthy, Hunger-Free Kids Act of 2010 authorized the United States Department of Agriculture to set nutritional guidelines for competitive foods. These guidelines went into effect July 1, 2014 (HHFKA, Public Law 111–296).

According to an analysis of United States Department of Agriculture (USDA) data, students consume almost 400 billion calories from junk foods sold in schools every year (Mission: Readiness, 2012). Despite these foods providing little nutritional value, in the 2003-2004 school year, 9 out of 10 public schools in the 2003-2004 school year sold these types of competitive foods (United States Government Accountability Office, 2005). A more recent report by Turner and Chaloupka (2012) indicates improvement in decreasing the availability of competitive foods and found that about 50% of elementary students had access to high-fat or sugary foods in school venues in the 2009-2010 school year. This indicates that school districts may be developing stricter nutrition standards for competitive foods or possibly removing them entirely.

To address the rising availability of competitive foods and to provide nutritional guidance for foods sold in schools, a multidisciplinary committee was formed at the Institute of Medicine (IOM). The IOM organized competitive foods and beverages into a set of two tiers based on the degree to which these foods follow the Dietary Guidelines for Americans (DGA). Tier 1 includes foods and beverages that provide at least one serving of fruit, vegetables, whole grains, and/or low-fat/nonfat dairy; these foods should be encouraged outside of the school meal program. Tier 2 items fall short of Tier 1 criteria, but do not fall outside of the DGA for other nutrients such as sodium (See

Appendices B and C). Foods and beverages that do not conform to either of the 2 tiers do not meet the DGA, and do not meet IOM standards. Although not federally required, these thirteen IOM standards have been developed based on the DGA and are considered to be the gold standard for school food nutrition (IOM, 2007). In a study comparing school wellness policy statements and how closely their standards for competitive foods were to IOM standards, Oklahoma earned a 4.5 out of 100, and fully met 0 of the 13 standards (CDC, 2012b). Addressing school meal programs and the availability of competitive food may be a way to impact the nutritional status of the nation's youth; however public health officials also consider school-based physical activity of similar importance in the fight against childhood obesity.

Schools have an opportunity to provide quality physical activity environments which may impact the health status of American youth. As previously mentioned, NASPE promotes school-based physical activity by providing guidelines and recommendations in order for youth to be "physically literate." Although recommendations exist for the amount of physical activity per week as well as physical activity program duration and quality, there have not been mandated school-based physical activity requirements at the national level, therefore requirements may vary in schools throughout the United States. For example, in a recent report from Bridging the Gap (2014), elementary school-aged children were required to participate anywhere from 30-150 minutes per week, while ranges for middle and high school students were between 20 and 250 minutes per week. School districts in Oklahoma are mandated by the state to minimally include a committee that makes recommendations regarding physical education and physical activity, and must also provide 60 minutes of physical

activity to children in grades kindergarten through fifth per week (OSDE, 2006). Individual elementary schools may go above this mandate, but may not offer less than 60 minutes per week for these grade levels.

In conclusion, studies show that oftentimes schools lack quality physical activity programs, affordable healthy foods, availability and advertising of unhealthy foods, as well as larger portion sizes which may make it difficult for children and youth to make healthy choices (CDC, 2012b). The school food and physical activity environment may play a role in the ability of youth and children's obesogenic behaviors in school settings for these reasons. Fortunately, the school nutrition and physical activity environments are not being ignored. Public health experts, key stakeholders, as well as local, state, and government officials have started to focus prevention efforts on school environments with hopes to improve the nation's health status. One strategy that public health experts and government officials have used to address youth obesogenic behaviors is to require school districts to develop local wellness policies that support healthful nutrition and physical activity environments.

School Wellness Policy Development

In an effort to combat the childhood obesity epidemic local and state officials, as well as the United States government, have made it a priority to reverse this trend. Over the past ten years Congress has passed two acts regarding the development and implementation of local school wellness policies in an effort to target the school nutrition and physical activity environments and promote school wellness. The Child Nutrition and Women, Infants, and Children Reauthorization Act of 2004 (WIC Reauthorization Act, Public Law 108-265), was the first of its kind requiring that schools receiving federal

funds for the reimbursement of school meals and those participating in the NSLP develop wellness goals in a written policy form. The aim of this act was to encourage wellness promotion by affecting the health behaviors of the 31.6 million children enrolled in the program, as well all students enrolled in participating NSLP schools by the school year 2006-2007 (USDA, 2013a). This act mandates that wellness policies minimally include: goals for nutrition education and physical activity; promotion of student wellness; nutrition guidelines for all foods available on school campuses; assurance that reimbursable school meals follow federal law; a plan for measuring implementation of the policy; and the involvement of parents, teachers, the school board, other key stakeholders and the public in the development of the policy (WIC Reauthorization Act, 2004). Although schools responded well to this by primarily developing a wellness policy; language, content, and implementation of these policies varies significantly, as specific minimum standards have not been set (Story et al., 2009).

The Healthy, Hunger-Free Kids Act of 2010 (HHFKA, Public Law 111–296) was developed to address these discrepancies. Additional wellness policy requirements in regards to public participation, transparency of wellness policies, and implementation were added to strengthen existing policies. Additional requirements of this act include: goals for nutrition promotion; participation of physical education teachers, school health officials, and key stakeholders in the implementation and review of policies; districts are required to inform the public of wellness policy content and implementation; as well as conduct a periodic measurement and assessment of implementation of wellness policies; and finally, schools must designate a local educational agency official or school official responsible for ensuring school compliance with the wellness policy (United States

Department of Education, 2010). This act also provides additional reimbursement for schools that adopt stronger nutrition standards for school meals.

The HHFKA serves as the first major change in 15 years for school meals by aligning food served at schools with dietary guidelines recommended to achieve a healthy weight (FNS, 2013). Prior to this act, the last major change in the NSLP nutrition policy was in 1994, when the Healthy Meals for Americans Act required school meals to conform to the DGA (Healthy Meals for Americans Act, S.1614 — 103rd Congress, 1994). These guidelines are a set of evidence-based nutrition information and advice that encourages Americans to eat a healthful diet and exercise regularly (United States Department of Agriculture, 2013b). Although school policies may once have been aligned with the DGAs; the DGAs are updated every five years, and school nutrition policy may not have followed this timeline. Many studies since the passage of the WIC Reauthorization Act have found that school meals were lacking in nutritional quality, indicating a need for improvement (Finkelstein, 2005).

Since the WIC Reauthorization Act of 2004 and the Healthy, Hunger-Free Kids Act of 2010 have gone into effect, researchers have begun to evaluate the outcomes of these acts based on different elements of school wellness policy, especially in regards to foods sold outside the school lunch program. Unfortunately, disparities may exist among different components of school wellness policies (as outlined by the WIC Reauthorization Act and the HHFKA). Some school wellness policies may focus on one area required by these acts, while ignoring other important areas. Evaluating the content and quality of wellness policies may be beneficial in order to inform school districts where they stand in relation to other districts, and what areas of their wellness policy may

need improvement in order to generate positive health outcomes among students. Assurance that strongly worded and comprehensive wellness policies focused on healthy school environments through nutrition education, standards for school meals, standards for foods sold outside the school lunch program, physical education and activity, and evaluation and implementation, exist within all school districts offer a way to prevent and decrease rates of childhood obesity nationwide.

School Wellness Policy Research

The examination of the quality and content of school wellness policies is of great interest to public health experts, researchers, and government officials. Interest in the development of school wellness policy has increased dramatically since the passage of the WIC Reauthorization Act and the HHFKA and remains a central focus in childhood obesity prevention efforts. Research on school wellness policies have focused on a few areas of impact such as food practices and BMI within schools, whether or not strong state school-food nutrition requirements impact BMI status, the impact of the development of nutrition standards for school meals and competitive foods, and finally, school wellness policy content and quality.

Policy research demonstrates that school food policies and practices may have a beneficial impact on student BMI. In 2005, researchers in the Minneapolis-St. Paul metropolitan area examined food policies and practices in classrooms and found that for every additional food practice allowed in middle schools, such as snacking in classrooms, or using food as a reward, students' BMI increased by 0.1 BMI units (Kubik, Lytle & Story, 2005). Similarly, in regards to school food and BMI, Taber et al. (2013) evaluated associations between state laws regarding standards for school meals and student BMI.

Results from the study completed by Taber and colleagues suggest that states with laws that exceeded USDA regulations for school meals (e.g. encouraging a certain number of fruits and vegetables, reductions in trans fats, and/or a minimum proportion of whole grains) that students who received school meals, especially those eligible to participate in free or reduced price meal programs, had better weight statuses (Taber, Chriqui, Powell and Chaloupka, 2013). Although the latter does not prove causality, these studies suggest that local and state policies designed to impact school food environments in relation to food practices in the classroom and throughout the school day, as well as standards for school meals may in fact reduce BMI and in the long-term, childhood obesity.

Furthermore, the reduction in weight status observed by students participating in an anti-obesity effort in King County, Washington through policy, systems, and the environment provides another example of why school-based policies matter. During 2010-2012, seven urban, low-income school districts, as well as local government agencies and community organizations implemented an obesity prevention initiative targeting culturally diverse, urban school districts through an effort titled Communities Putting Prevention to Work (CPPW). Strategies included developing nutrition standards for meals, student-led healthy eating and physical activity promotional campaigns, reaching out to non-English speaking families, farm-to-school initiatives, creating active transportation and safe-ride initiatives, development of a high quality physical education program, providing opportunities for low or no cost physical activities, as well as many others.

In 2012, according to the Washington State Healthy Youth Survey, a survey designed to track obesity; participating schools (grades 8, 10, and 12 combined) observed

a significant decline in obesity from 10.8% to 8.8%, whereas non-CPPW participating school rates remained unchanged (Washington State Department of Health, 2014). The strategies used and outcomes observed in King County, in part attributable to the CPPW obesity prevention initiative may have promising implications for state- and nation-wide strategies to improve school health. Findings support the benefits that school-based wellness initiatives may have on student health; however, more research is needed.

Other research focuses on the adoption of nutrition standards for all foods sold in schools and the impact these changes in standards may have on the food and beverage environment in schools, as well as child meal participation rates in different states. Connecticut is one state that has demonstrated that state policies focused on competitive foods and beverages can have an effect on the school nutrition environment. Connecticut's Healthy Food Certification program provides monetary incentives to schools that choose to adopt optional state nutrition standards for all foods sold outside the school lunch program (Long, Henderson, and Schwartz, 2010). Although these standards are voluntary, this same legislation mandates statewide beverage standards that limit sales to water, milk, nondairy milk, and 100% juice at school. Portions are limited to 12 fluid ounces on all beverages except water.

Researchers evaluated the pre- and post-implementation impact of these regulations in schools that participated in the NSLP. Results demonstrated that with the optional use of this program, along with the mandated beverage policy, Connecticut significantly reduced the availability of unhealthy foods, and became one of the most effective states at removing unhealthy competitive foods from secondary school environments. Schools that participated in the Healthy Food Certification program also

saw increases in NSLP participation (Long et al., 2010; Brener, O'Toole, Kann, Lowry, and Wechsler, 2009). Additionally, research also suggests that in schools with some type of regulation regarding competitive foods compared to schools with no competitive food policies, students report consuming slightly lower overall intakes of sugar, fat, and calories (Taber et al., 2012). Together, these studies demonstrate that decreasing the availability of unhealthy competitive foods and beverages, or developing nutrition standards for these foods may encourage nutritious choices, increase school meal program participation, as well as potentially decrease caloric intake and improve weight status long-term, however more research is needed.

Locally enforced school district policies that go beyond state expectations show promising results in NSLP participation and healthy food preferences. A San Franciscan middle school implemented a program similar to Connecticut that limited the availability of unhealthy beverages in schools, as well as developed specific fat and sugar standards for foods sold outside of the school meal program. Parents, the community, and key stakeholders met and developed a nutrition committee and task force responsible for making changes to school lunches. These changes impacted all points of sale such as vending machines, snack bars, school stores, the cafeteria, and sport concessions. Changes included things such as substituting sushi, fresh soup, and deli sandwiches in the place of Slim Jims, Twinkies, and giant pizzas in the 2002-2003 school year. Researchers assessed eating practices, participation in the school meal program, and school revenue before and after the nutrition standards were set. Similar to Connecticut, results showed increased participation in the NSLP post-intervention, as well as an

increased preference for food served in the cafeteria by students (Wojcicki and Heyman, 2006).

Not only did this San Franciscan middle school have a local effect, but outcomes from this study created a positive district wide change. All schools in the San Francisco Unified School District gradually began to adopt stronger nutrition standards for school foods at all points of sale. This study suggests that creating policies at the local level directed at improving the school food environment may be well-accepted, increase school meal participation, as well as lead students to opt for healthier food options (Wojcicki and Heyman, 2006).

Clearly, having some type of policy promoting wellness matters and can make a difference in school settings. The evaluation of school wellness policy status, quality, and content is of current interest to researchers, public health experts, and government officials. In most research surrounding the status, quality, and content of school wellness policies, there are five domains a policy must address due to legislation from the WIC Reauthorization Act and HHFKA, which are: nutrition education, standards for school meals, standards for foods sold outside the school meal programs, physical education and activity, and evaluation and implementation. Since the passage of these acts, much research has been conducted in the area of school wellness policy development and quality in order to determine primarily if school districts adhered to these acts by developing wellness policies, and secondly to what degree districts were able to comply with these mandates based on their level of compliance and strength of policy wording. These variables are often measured along with school district socio-demographic factors

such as free and reduced price meal eligibility, academic status, and geographic location in order to examine and understand potential discrepancies that may occur.

Prior to the passage of the HHFKA, thirty of Utah's mostly rural school district policies were gathered and evaluated based on their compliance (comprehensiveness) to requirements set forth by the WIC Reauthorization Act, as well as the strength of wording in the policy, and various socio-demographic variables. Compliance was based on if districts adhered to state and federal requirements, as indicated by wellness statements in their policies and strength was measured by specific policy wording (Metos & Nanney, 2007).

Most of school districts (78%) complied with federal guidelines; however, policy strength scores were low. Out of the 32 policy elements scored, districts had an average of 7 mandated policy statements. Although most of these districts complied with the federal mandate, researchers observed significant differences between policy scores and different demographic variables. In regards to nutrition education and policy, schools with higher percentages of free and reduced price meal enrollments were more likely to mandate wellness policy items than those with medium or low free or reduced price meal enrollments. Urban schools were observed to include guidelines for foods sold at school more often than more rural school districts (Metos & Nanney, 2007).

This study suggests that most schools were able to comply with the WIC Reauthorization Act, but that compliance did not indicate dedication to wellness goals, as indicated by low strength scores. Interestingly, there appear to be differences in school policies based on geographic and demographic variables which could limit the effect that the WIC Reauthorization Act was designed to have on the school environment, as well as

the nutrition status of school-aged children. Low strength scores may leave school districts, individual schools, and educators room for interpretation in the follow-through of wellness policy implementation. This study was conducted on policies written for the 2005-2006 school years, but later studies have released similar findings: that discrepancies may still exist among geographic location. Nanney and colleagues (2013) reported that nationwide, rural school districts are still much less likely to have school wellness policies that support healthy school environments. In addition, other research indicates discrepancies among different sections of school wellness policies based on geographic location. For example, in the region of the United States where Oklahoma is located, specifically the West South Central region; policies had the weakest physical education policy statements, but had higher scores related to competitive foods (Taber, Chriqui, & Chaloupka, 2011). This indicated to researchers that some domains of wellness policies may be focused on heavily, while other important domains may be ignored. Research teams continue to measure wellness policy content and quality to determine if the same is true within individual states.

Lyn and colleagues (2012) evaluated policy strength and compliance in order to analyze relationships between demographic factors such as district enrollment, academic performance, percentage of economically disadvantaged students, and county population profile. At the time of this study (2007-2008), there were only three other statewide evaluations and analyses of wellness policies; and none had been completed in the south, an area with the highest prevalence of obesity in the United States. Researchers collected wellness policies through the Georgia Department of Education and developed an instrument for evaluation. The instrument consisted of a 4 point scale that assessed

policy compliance and strength of the 7 areas required by the WIC Reauthorization Act of 2004. A score of 0 indicated no reference; 1) a limited reference; 2) a substantial reference; and 3) an exceptional reference (Lyn, O'Meara, Hepburn, & Potter, 2012).

Researchers found that although school districts were highly compliant in certain areas of wellness policy development, only about half of school districts were fully compliant across all 7 elements. Strength of wellness policies also varied. There were few exceptional references given (a score of 3), however the most commonly mentioned was nutrition education; 23% of schools earned a substantial or exceptional reference. The element least addressed was physical activity, with less than 18% of districts earning a substantial or exceptional reference. Schools that earned high nutrition education scores generally fared better both academically and economically. Higher graduation rates (a measure of academic standing) were observed in school districts with higher scores for school based activities such as school health committees and family engagement (Lyn et al., 2012).

This study demonstrates that schools have attempted to comply with the WIC Reauthorization Act, but many areas of policy development are lacking and there is a need for increased quality of policies. Findings also suggest that there may be relationships between school-related wellness activities and economic and academic standing. Because compliance was found to be low in this study when compared to others, researchers stated that other studies may have used a more rigorous evaluation instrument. As more states begin to evaluate the quality, content, and strength of the wellness policies put in place by their school districts, there is a need for a standardized,

rigorous evaluation instrument that can be validated for comparison purposes across states (Lyn et al., 2012).

In conclusion, previous research of school wellness policies indicates that policies can make a difference in the school environment as well as on the students in attendance. School districts and states that have required nutrition standards may improve student weight status, increase school meal program participation, positively impact the school food environment and student preferences for food served at school, as well as reduce the availability of unhealthy competitive food. Although these indications are promising, there may be discrepancies in policy quality and therefore impact based on socio-demographic variables in different states, as observed by Metos and Nanney (2007), and Lyn and colleagues (2012); however, a standardized assessment tool is required for comparison purposes.

Development of a School Wellness Policy Assessment Tool

As discussed previously, select states have assessed their school wellness policies; although prior to 2009, there was no reliable method of evaluation in existence. To address this need, a 96-item coding tool focused on nutrition education, nutrition school meal standards, competitive food standards, physical education, physical activity, communication and promotion, and evaluation of school wellness policies was developed by researchers at the Rudd Center for Food Policy and Obesity at Yale University as a standard method of evaluation (Schwartz et al., 2009). Each element was broken down into more specific components and was rated on both comprehensiveness and strength. Scales from 0-2 were used for evaluation methods: 0 being no mention of the element, 1: the policy used a weak reference, and 2: a requirement in school districts. Strength was

determined by specific policy language. A strong statement uses words such as "will" or "require," while a weak statement uses language such as "encourage" or "should." Strong statements are rated as a score of 2, while weak are rated as a score of 1; dependent on the statement. Strength of wording was included in the evaluation because researchers noted that many school district policies were written as recommendations or suggestions; but were not definitively required (Bridging the Gap, 2009).

Reliability was assessed by having researchers from four different states evaluate a sample of wellness policies and compare results. Total scores were calculated from 0-100. A shortened version of this, titled the Wellness School Assessment Tool (WellSAT) evaluates school wellness policies in five compact categories similar to the original tool: nutrition education and wellness promotion, standards for USDA child nutrition programs and school meals, nutrition standards of competitive and other foods and beverages, physical education and physical activity, and evaluation (Appendix D, Rudd Center for Food Policy and Obesity, n.d.). The WellSAT has been adapted and used extensively by Chriqui and colleagues, whom have demonstrated that it is a consistent and reliable tool for the quantitative assessment of school wellness policy quality (Bridging the Gap, 2013).

Since the development of this tool, researchers all over the country continue to evaluate school wellness policies in order to understand the potential impact they may have on student wellness, as well as examine specific components of school policy statements. Due to the development of a reliable and consistent evaluation tool, school wellness policy evaluation findings are now able to be compared nationwide. Only a select few individual states have utilized the WellSAT to evaluate school district wellness

policies, making this a new and promising area of policy research. For these reasons, WellSAT evaluations and the subsequent results and implications of these are of recent interest to researchers, public health experts, and local as well as government officials throughout the United States.

School Wellness Policy Research using the WellSAT

Following the development of the WellSAT and the implementation of the WIC Reauthorization Act and the HHFKA, research teams across the country have used this tool to examine school district wellness policy quality, as well as content and strength of specific policy domains. School wellness policy content and quality has been evaluated nationwide, and locally within a select few states. As the WellSAT is a standardized and reliable evaluation tool, comparisons and contrasts of wellness policy content have also been made across different states.

Since the implementation of the WIC Reauthorization Act in 2006, a funded Robert Wood Johnson Foundation research program known as Bridging the Gap has evaluated school wellness policies in relation to school district's abilities to develop policies that comply with these regulations (as well as those later set forth by the HHFKA). This research group has provided annual evaluations of school wellness policies since 2006 and is the only nationally representative sample of school wellness policy content and quality evaluation to date. Bridging the Gap uses the original 96-item version of the WellSAT to assess policies by examining the compliance to the WIC Reauthorization Act and the HHFKA, as well as measures the strength of policy wording (Bridging the Gap, 2013). In these evaluations, policy content (comprehensiveness) is

compared to school wellness mandates and strength is measured by specific policy wording.

Bridging the Gap found that most schools had a wellness policy in place by the 2006-2007 school year; however many policies were lacking certain criteria, and/or did not directly require schools to take action. Although in the most recent evaluation (2010-2011), most schools had a wellness policy in place, only 46% of school districts had policies that addressed all five required wellness policy domains. Policy elements within the five domains were relatively comprehensive, but lacked strength. The lack of strong wording suggests that policy elements were suggested, but may not have been required, and therefore likely were not implemented, which is obviously a strong predictor of student health outcomes. Despite the fact that compliance and strength improved from 2006-2011 in this report (from 38 to 48 of 100, and from 21 to 28 of 100, respectively), low scores in both areas indicate a significant need for school wellness policy improvement (Bridging the Gap, 2013).

The WellSAT has also been used by individual states to evaluate school policy and socio-demographic variables, including Connecticut, Colorado, and Minnesota. The WellSAT was used in Connecticut in the 2005-2006 and 2006-2007 school years to test whether or not stronger written district level policies predict better implementation in schools and relationships between various socio-demographic variables including district enrollment, population density, political makeup, race, and socioeconomic status. School district policies were evaluated and school principals completed a survey that was developed by the research team to measure actual school practices and implementation. Results indicated both low comprehensiveness ($\bar{x}$ = 55.09, SD = 14.45) and strength ($\bar{x}$ =

38.43, SD = 13.32) scores and showed that although schools are required to write wellness policies, they are not necessarily required to adopt them. Urban schools with higher proportions of students eligible for free and reduced priced meals consistently developed stronger worded policies than other districts. Based on survey results, higher strength scores predicted significantly greater full implementation of wellness promoting practices at the school level, suggesting that the wording of policies makes a difference in the degree of implementation. Results from the study demonstrated that school districts in Connecticut that used strong language in school wellness policies made the policy more likely to be fully implemented, than those using weaker language (Schwartz et al., 2012). Therefore, it may be important for wellness policies to use strong language, as these schools may be more likely to put strongly worded policy statements into action. These findings can potentially be adopted nationwide; however, more state specific research is necessary.

Researchers at the University of Denver used an early version of the WellSAT to evaluate 45 school wellness policies in 40 rural Colorado school districts (Belansky et al., 2009). Researchers evaluated policies for the 2006-2007 school year in schools where at least 40% of students qualified for free or reduced price meals. It was found that just under half of the elements included in the 96-item coding tool were mentioned, and that some domains of the early WellSAT had lower scores than others. Physical education had the lowest score, while evaluation had the highest; strength scores for all domains were low. Unexpectedly, certain elements of school wellness policies did not change after the WIC Reauthorization Act. The main finding of this study was that physical activity levels did not change in the few years after the federal mandate went into effect;

they in fact decreased by five minutes per week. However, these same researchers found that within this sample of school districts five years later, although minutes spent in physical education and recess did not increase, there was an increase in other wellness-related policy statements. More schools had policies prohibiting physical activity being taken away as a punishment, and more policies were developed that targeted vending machines and classroom parties (Belansky et al., 2013).

In the initial study, many rural school districts lacked resources to develop policies and were provided with a model school wellness policy by the Colorado Association of School Boards, which was relatively comprehensive, but lacked strong wording. Unfortunately, 5 years after the mandate, although there were some changes in policy content, changes in school practices were still modest. This may be due to several barriers schools face in regards to implementation such as: financial constraints, being focused on other academic priorities (such as No Child Left Behind), and a lack of implementation accountability (Belansky et al., 2009). These studies demonstrate that although schools may have developed wellness policies, more research is needed to not only evaluate these policies; but to also ensure that schools practices are also changing, and to address barriers that may prevent full implementation.

More recently, Minnesotan school district wellness policies were evaluated using the WellSAT, while also examining different district socio-demographic variables. Similar to other state and nationwide evaluations, overall mean district WellSAT strength and comprehensiveness scores were low (mean scores were 54.66 and 24.97, respectively), as were individual WellSAT subsection scores. In contrast to previous studies, no significant differences were found between policy quality and geographic

location, other than in the WellSAT subsection focused on standards for child nutrition programs and school meals. In this section, rural school districts had a greater mean Comprehensiveness score. Consistent with previous studies, relationships were found among free and reduced price meal eligibility and wellness policy quality. Findings indicate that as the percentage of students eligible for these meals increased, comprehensiveness of policies increases as well (Hoffman, 2012).

Relationships observed by Hoffman (2012) in Minnesota between free and reduced price meal eligibility and comprehensiveness of wellness policies may not be true for all states. Baker (2014) used the WellSAT to evaluate 91 individual school wellness policies located within 16 Kentucky school districts and found that there were no significant differences among schools with high or low percentages of students eligible for free and reduced price meals and policy strength and comprehensiveness. Similar to previous studies, mean Total Comprehensiveness scores were low ($\bar{x} = 45.3$), as were mean Total Strength scores ($\bar{x} = 12.86$). Interestingly, this study also found that among individual schools, secondary schools were at a 3.65 higher risk of lower nutrition education scores compared to elementary schools (Baker, 2014). In conclusion, differences among policy quality and socio-demographic variables between states, and the lack of policy evaluation in Oklahoma indicate the need for future research in this area.

Study Aim

It can be seen that school districts have indeed succeeded in adopting some type of school wellness policy; however, there is a severe disconnect as to the extent districts are able to develop policies that comply with the WIC Reauthorization Act and the

HHFKA, and the subsequent implementation of these policies. The studies examined in the previous sections of this chapter have indicated that the quality of school wellness policies may be lacking overall; and that schools may have some domains that are strong and comprehensive, but may struggle with developing strong statements for other important domains. As many researchers have observed, mean WellSAT strength and comprehensiveness evaluation scores of school wellness policies are relatively low, which again are exemplified in the studies discussed previously. Additionally, it appears that the content and quality of school wellness policies may vary depending on district socio-demographic factors such as geographic location, free and reduced price meal eligibility, and in some cases academic status.

The development of the WIC Reauthorization Act and the HHFKA were intended to affect the nutrition, physical activity, and wellness status of all students enrolled in schools participating in child nutrition programs. Unfortunately, low policy scores and disparities in content and quality based on socio-demographic variables indicate that local school wellness policies resulting from these acts may not be having the fully intended effects they were designed to have on students nationwide. School policy research has the potential to guide policy writers in the creation of strong and specific wellness policy statements so that individual schools are aware of exactly what is required by them. School wellness policy research may also present an opportunity for policy writers to consider revising current policy statements, therefore potentially changing policy requirements. To assess the status of school wellness policies and their impacts, increased research is needed to address policy content, as well as loop holes and weak policy

language in order to determine what is actually being required by schools, and therefore hopefully implemented.

As the area of school nutrition policy research and its potential to reverse childhood obesity grows, individual states are continuing to evaluate the status of their local school district wellness policies. The lack of school wellness policy evaluation in Oklahoma, a state with a high prevalence of obesity; has created a gap in understanding of the role of the school environment on youth obesogenic habits and weight status. For this reason, the purpose of this study is to examine the strength and comprehensiveness scores of school district wellness policies across Oklahoma using the WellSAT. These scores will be used to compare WellSAT scores by geographic location, free and reduced price meal eligibility, and academic status. This lack of understanding in Oklahoma of policy content and quality makes this evaluation of school wellness policies and potential comparisons between various socio-demographic factors in Oklahoma of significant importance to district and state level policy makers, key stakeholders, as well as to the field of school policy research.

CHAPTER III

METHODOLOGY

The following sections will describe the methodology of this study including the study design, participant selection methods, data collection methods, the evaluation instrument, dependent and independent variables of interest, study research questions, employed coding methods, and finally data analysis techniques.

Participants

The United States Department of Agriculture (USDA) requires that every school participating in the NSLP adopt a wellness policy, but until now there has been no formal, systematic assessment or evaluation of policy content and implementation in the state of Oklahoma. There are 549 school districts in Oklahoma whose policies are required to be evaluated over the next three years (HHFK, 2010). For the purpose of this study, a convenience sample of 176 Oklahoman school district wellness policies selected by OSDE were forwarded to Oklahoma State University- Evaluation, and were then forwarded to the lead-coder. Juvenile justice programs and charter schools were not

included in the evaluation of school wellness policies as they are not held to the same standards as public schools and may not be funded in the same way.

Data Collection

The 176 school district wellness policies were electronically submitted by school districts to OSDE. Wellness policies were defined as those in place after the federally mandated WIC Reauthorization Act of 2004. The 176 school districts submitting the school wellness policies represented in this study were selected by OSDE as districts that had gone without review for the longest amount of time across all districts in Oklahoma.

Instrument

The WellSAT has been validated as a standardized tool to evaluate school wellness policy strength and comprehensiveness. This tool focuses on five domains of school wellness policy content: Nutrition Education and Wellness Promotion; Standards for USDA Child Nutrition Programs and School Meals; Nutrition Standards for Competitive and Other Foods and Beverages; Physical Education and Physical Activity; and Evaluation (Schwartz et al., 2009). These domains are each broken down into more specific, measureable elements that can be individually scored based on the content of each policy (Appendix D). The WellSAT provides two scores based on the comprehensiveness and strength of the policy (Figure 1). Comprehensiveness is measured by the number of elements the policy mentioned that are included on the WellSAT, while strength is measured by policy wording. A strong policy statement uses words such as *have, will, must, require,* while a weak policy statement uses vague statements or words such as *encourage, suggest, might,* or *should.* Overall policy scores

were calculated from 0-100; 100 being the strongest score a policy could obtain (Bridging the Gap, 2009).

Figure 1: *Determining WellSAT Scores (Schwartz, et al., 2009)*

The WellSAT will give you two scores: a **comprehensiveness** score, which reflects the extent to which recommended content areas are covered in the policy; and a **strength** score, which describes how strongly the content is stated. Both scores range from 0-100, with lower scores indicating less content and weaker language, and higher scores indicating more content and use of specific and directive language.	
Score	Explanation
Comprehensiveness Score by section	Comprehensiveness is calculated by counting the number of items in each section rated as "1" or "2," dividing this number by the number of policy items in the section, and multiplying this number by 100.
Strength Score by section	Strength is calculated by counting the number of items in each section rated as "2," dividing this number by the number of policy items in the section, and multiplying this number by 100.
Total Comprehensiveness	Total comprehensiveness is calculated by counting the number of items rated as "1" or "2," dividing this number by the total number of policy items (50) in all five sections, and multiplying this number by 100.
Total Strength	Total strength is calculated by counting the number of items rated as "2," dividing this number by the total number of policy items (50) in all five sections, and multiplying this number by 100.

Variables of Interest

Dependent variables of interest will be subsection and overall mean WellSAT Strength and Comprehensiveness scores, while independent variables of interest are

academic standing, free and reduced price meal eligibility (as a marker of socioeconomic status), and school district geographic location. The collection methods of variables of interest to this study will be discussed below.

Dependent Variables: 1) School wellness policy Total Comprehensiveness score, 2) School wellness policy Total Strength score, 3) Comprehensiveness score for each WellSAT subsection (Nutrition Education and Wellness Promotion, Standards for USDA Child Nutrition Programs and School Meals, Nutrition Standards of Competitive and Other Foods and Beverages, Physical Education and Physical Activity, and Evaluation), 4) Strength score for each WellSAT subsection (as listed above).

Independent Variables: 1) Academic Standing, 2) Free or Reduced Price Meal Eligibility, and 3) School District Geographic Location.

Independent variables were collected in the following manner:

1) Academic Standing: Oklahoma State A-F Report cards are available for all Oklahoma schools and assign grades A+ through F based on student performance, achievement, and growth in various school subjects, and are designed to encourage schools to challenge their students to prepare for college and careers. An A+ is a 97% or above, an A is a 93%-96%, and an A- is a 90%-92%. Grades continue to taper until the letter grade F (59% or below). The statewide grade for Oklahoma is a 71% or a C-. This 2013 report encompasses school district academic ratings from the 2012-2013 school year (OSDE, 2013).
2) Eligibility for free and reduced price meals will be measured using the Low Income Report released in October 2013 that encompasses the school year 2013-2014 (OSDE, 2013). The Low Income Report consists of a percentage of students eligible

for free and reduced price meals through child nutrition programs. This variable will be used as a measure of school district socioeconomic status.

3) The schools location in a rural or urban environment will be determined using OSDE's rural or urban designation, based on county size and metropolitan statistical areas of United States Census Bureau population estimates.

Research Questions

Question 1: How comprehensive are Oklahoma school district wellness policy scores?

Question 2: How strong are school district wellness policies in Oklahoma?

Question 3: Are there differences in policy quality (i.e., strength and comprehensiveness) in Oklahoma among school districts with different levels of academic standing?

Question 4: Are there disparities in policy quality (i.e., strength and comprehensiveness) among Oklahoma school districts based on the percentage of students eligible for free and reduced price meals?

Question 5: Are there differences in policy quality (i.e., strength and comprehensiveness) in Oklahoma among school districts in rural or urban geographic locations?

Coding Methods

As mentioned, the WellSAT is a 50-item shortened version of a comprehensive 96-item coding tool developed by Schwartz et al. (2009) was used to evaluate school wellness policies in this study. For the purpose of this study, the WellSAT was further adapted to include three additional elements focused on physical education and physical

activity (PEPA) bringing the total number of WellSAT elements to 53. These elements are listed in the WellSAT as PEPA15+, PEPA16+, and PEPA17+ and were developed in order to learn about time spent in moderate to vigorous physical activity, promotion of active transportation and safe routes to school, and staff training in integrating physical activity into the school curriculum. Wording of these elements was borrowed from the original 96-item school wellness coding tool. These were incorporated into the WellSAT to examine how well policies were meeting federal, aforementioned Tobacco Settlement Endowment Trust, and the model school wellness policy developed by the Oklahoma State Department of Health and the OSDE. An evaluation sheet was developed by the lead coder, similar to the online version of the WellSAT (Appendix E).

Prior to actual policy evaluation, training and a pilot study of policy evaluation were completed by the primary rater and a secondary rater for the purpose of establishing inter-rater reliability (IRR) using intra-class correlations (ICC). Training consisted of the two coders watching the four webinars developed by Yale's Rudd Center for Food Policy and Obesity describing how to code policies using the WellSAT, available on the tool developer's website (wellsat.org).

The trained coders were assigned seven identical policies to practice individually evaluating, as well as to assess inter-class correlations. Coders individually evaluated each policy and calculated strength and comprehensiveness scores of each section as well as final scores, as directed by the WellSAT (Figure 1). This data was entered into IBM SPSS v20 to determine ICC. Upon low IRR, coders reconvened to discuss each score and reasons these scores were given in order to come to agreement on a third score for each element disagreed on.

In order to establish IRR, thirty identical policies were then assigned to the trained coders to be evaluated separately using ICC to assess IRR (the aim was an inter-class correlation equal to or greater than 0.80, indicating "very good agreement," as recommended by Peat, 2001). For these 30 policies (Time 1), IRR was assessed per section and overall. IRR scores for Evaluation and Standards for Competitive Foods sections remained lower than desired. Coders met to discuss and agree on policy scores for both of these sections. During this session, coders discussed developing template policies due to receiving identical school district wellness policies submitted from multiple districts in order to maintain consistency while evaluating. Coders developed three template policies of agreed upon scores (see attachments), and another set of 20 policies were assigned to the coders for Time 2 in which an acceptable IRR was established.

Of the first 30 policies, the policy scores were randomly selected, and the agreed upon third score for the competitive foods and evaluation sections was used in place of the original evaluation. Similarly, the second 20 policies evaluated together were selected randomly, and the remaining policies were randomly divided amongst the coders. A total of 63 policies were evaluated individually by each coder, and a total of 50 policies were graded by both evaluators, and selected randomly for a total of 176 policies. This study was approved by the Oklahoma State University Institutional Review Board (Appendix F).

WellSAT Inter-rater Reliability

In Time 1 of WellSAT IRR assessment, IRR was established at ICC = 0.928, 95% CI [0.856-0.965] and ICC= 0.896, 95% CI [0.775-0.980] for total comprehensiveness and

strength scores respectively (see Table 1). The second round of policies, or Time 2, were assigned in order to establish higher IRR within subsection scores; IRR was improved and found to be ICC =0.987, 95% CI [0.968-0.995] and ICC = 0.965, 95% CI [0.915-0.986] for comprehensiveness and strength, respectively (see Table 2).

Table 1: *Time 1- Assessment of Inter-Rater Reliability, n = 30*

Section	**Comprehensiveness (CI 95%)**	**Strength (CI 95%)**
Nutrition Education	0.919 (0.838-0.961)	0.840 (0.172-0.951)
School Meals	0.914 (0.828-0.958)	0.871 (0.734-0.938)
Competitive Foods	0.750 (0.537-0.872)	0.825 (0.663-0.913)
Physical Education	0.962 (0.919-0.982)	0.899 (0.749-0.955)
Evaluation	0.683 (0.433-0.836)	0.706 (0.637-0.918)
Overall	0.928 (0.856-0.965)	0.896 (0.775-0.980)

Table 2: *Time 2- Assessment of Inter-Rater Reliability, n = 20*

Section	**Comprehensiveness (CI 95%)**	**Strength (CI 95%)**
Nutrition Education	0.971 (0.929-0.988)	0.921 (0.814-0.968)
School Meals	0.983 (0.953-0.994)	0.884 (0.729-0.952)
Competitive Foods	0.916 (0.803-0.966)	0.837 (0.634-0.932)
Physical Education	0.951 (0.882-0.980)	0.971 (0.928-0.988)
Evaluation	0.796 (0.551-0.914)	0.898 (0.764-0.958)
Overall	0.987 (0.968-0.995)	0.965 (0.915-0.986)

Once IRR was established, the first 30 policies were randomly selected for final analysis. However, the agreed upon third score for the competitive foods and evaluation sections was used in place of the original evaluation, the second 20 policies evaluated together were randomly selected. The remaining, unevaluated policies were randomly divided amongst the coders. A total of 63 policies were evaluated individually by each coder, and a total of 50 policies were graded by both evaluators, and randomly selected from for a total of 176 school district wellness policies.

Data Analysis

All data were entered into IBM SPSS v.20, and data were assessed at the $p < 0.05$ significance level. Tests of normality and checks for test assumptions for exploratory analysis were conducted and the sample size (N= 176) was considered acceptable for an independent samples t-test and ANOVA analyses. An independent- samples t-test was conducted to compare differences between mean subsection and overall WellSAT Strength and Comprehensiveness scores and geographic location (Urban versus Rural). Data was determined to be skewed for the Nutritional Standards for Competitive Foods Strength score, so a nonparametric Mann-Whitney U test was conducted to evaluate potential associations between Strength and Comprehensiveness scores for this section and Rural or Urban location.

A one-way between-groups analysis of variance (ANOVA) was conducted to examine WellSAT Overall and subsection scores on the number of students eligible in each school district for free and reduced price meals. To conduct the ANOVA, free and reduced priced meal eligibility was divided into tertiles: *low, medium,* and *high* eligibility in order to examine potential differences between groups. The tertiles are as follows: Low Eligibility (less than 62.80% of student eligibility); Middle Eligibility (between 62.81% and 76.33% of student eligibility); and High Eligibility (greater than 76.34% of student eligibility). Districts with *high* eligibility for free and reduced price meals indicate a higher level of program participation, suggesting a lower district socio-economic status. Districts with *low* eligibility for free and reduced price meals suggest that the district has a higher socio-economic status than the districts in the *low* or *medium* groups, as participation rates are low and free and reduced price meal participation is dependent on

family income. It should be noted that 171 of 176 schools had Free and Reduced Price Meal Eligibility information (OSDE, 2013). The mean free and reduced priced meal eligibility for this school district wellness policy sample was 67.87%; slightly higher than the state average of 62.13% (Low Income Report, 2014). Data was found to be skewed for the Nutritional Standards for Competitive Foods Strength score, resulting in the use of a nonparametric Kruskal-Wallis test for this section.

Lastly, ANOVA was conducted to examine WellSAT Overall and subsection scores and school district Academic Status, as measured by Oklahoma State Department of Education A-F School Report Cards (OSDE, 2013). School districts were divided into three groups according to their numerical academic grades assigned by the Oklahoma State A-F Report Cards. *Exceptional* or those districts receiving a numerical grade of 80-100, or a letter grade of an A or a B; *Average* or scores between 70-79, or a C grade, and; *Poor* or those districts receiving grades of 69 and below, or a D and an F. These score ranges were chosen to obtain similar group sizes, as well as to reflect 3 levels of academic standards in categories often seen in academic grading systems (exceptional/outstanding; average/satisfactory; poor/below average). The average grade of this study was 73.41, or a C grade, slightly higher than the statewide average grade of a 71 (OSDE, 2013).Similar to Free and Reduced Price Meal Eligibility, data for the Strength component of Nutritional Standards for Competitive Foods were skewed so a nonparametric Kruskal-Wallis test was conducted for this section. The next section will present the findings of these tests.

CHAPTER IV

FINDINGS

The following section will include the data analysis and findings of this study. Sample statistics, socio-demographic characteristics, and the results of the inter-rater reliability assessment will be presented, followed by mean scores of the WellSAT subsections and total scores and lastly the analysis of WellSAT Strength and Comprehensiveness subsection and total scores and comparisons with socio-demographic characteristics will be presented.

Sample Statistics

In the original sample of 174 school wellness policies forwarded from the OSDE to the Oklahoma State University- Evaluation team, 8 of these were juvenile justice programs or charter schools and for the purpose of this study were not included in the WellSAT evaluation. Of these remaining 166 school wellness policies, 164 were received by OSU-E (98.78%), the two missing policies were cited as having moved to another review year. Twelve additional wellness policies that were not included on the

original list, but needed to be reviewed were forwarded to OSU-E, for a total sample size of 176 school district wellness policies.

Table 3 presents the school characteristics and demographic variables in the study sample. Most school districts were independent schools, meaning that these schools are accredited and held to certain academic standards, as well as contain grades kindergarten through twelfth grade. Dependent school districts are districts that offer kindergarten through eighth grade, after which students transfer to an independent district to attend high school. These schools are often found in rural areas, and may be poorly funded (Reeves, 2003). Charter schools are those that are funded by a sponsor or group of sponsors; they may be held to similar standards but may employ different methods of reaching these standards. Although school district types may be different in terms of academic funding, if they are participating in Child Nutrition Programs and are receiving federal funds for the reimbursement of school meals they must comply with the same nutritional requirements per meal.

Table 3: *School District Socio-demographic Characteristics*

Socio-demographic Characteristics	Frequency *N* = 176
School District Type	
Independent	135 (76.70%)
Dependent	2 (1.10%)
Charter	39 (22.20%)
Geographic Location	
Rural	122 (69.30%)
Urban	54 (30.70%)
Academic Letter Grade	
Exceptional (A or B)	51 (29.00%)
Average (C)	61 (34.70%)
Poor (D or F)	64 (36.30%)
Free and Reduced Price Lunch Eligibility (*N* = 171)	
High (>76.34%)	57 (33.33%)
Medium (62.81-76.33%)	57 (33.33%)
Low (<62.80%)	57 (33.33%)

In this sample, 69.3% of the school districts were located in rural environments, similar to the geographic profile of 65.2% of school districts located in rural locations throughout the state (OSDE personal communication, 2013). Of Oklahoma's 77 counties, school district wellness policies submissions in this study represent 59 of these counties (Oklahoma Historical Society, 2007). In total, Oklahoma consists of 18 urban counties and 59 rural counties (OSDE, personal communication, 2013). In this sample, there are 16 counties classified as urban and 43 classified as rural. Geographic location classifications were based on metropolitan statistical areas of United States Census Bureau population estimates (OSDE, personal communication, 2013). A metropolitan area is an urban location of 50,000 or more inhabitants, while a rural area is any county with less than this population, including micropolitan areas (United States Census Bureau, 2013). Of the 59 counties represented, there were 122 school districts classified as rural, and the remaining 54 were classified as urban based on this designation.

Mean WellSAT Subsection and Overall Scores

Table 4 presents subsection and overall Strength and Comprehensiveness scores for the sample of 176 school wellness policies. Most mean subsection Strength scores were about half or less as much as mean Comprehensiveness scores. The most notable difference was between Strength ($\bar{x}$ = 12.00, SD = 21.62) and Comprehensiveness ($\bar{x}$ = 43.54, SD = 21.28) scores in the Nutrition Standards for Competitive Foods section, with the mean Strength score being almost three-fourths less than the mean Comprehensiveness score (-72.4%). Mean subsection Strength scores were lowest for Nutrition Standards for Competitive Foods ($\bar{x}$ = 12.00, SD = 21.62) and Physical Education and Physical Activity ($\bar{x}$ = 12.48, SD = 15.20). Mean subsection Comprehensiveness scores were lowest for Physical Education and Physical Activity ($\bar{x}$ = 24.47, SD = 20.89). The Nutrition Education and Wellness Promotion and Evaluation had both the highest mean Comprehensiveness score ($\bar{x}$ = 68.06, SD = 21.14), and the highest mean Strength score ($\bar{x}$ = 47.22, SD = 23.02). Comprehensiveness scores for Standards for USDA School Meals and Nutrition Standards for Competitive Foods were average when compared to other mean subsection scores, however remained low overall with a score around 50 out of 100 possible points. Overall WellSAT Strength scores were a little less than half of Overall Comprehensiveness scores. Overall and subsection WellSAT scores at the individual school level can be found in Appendix G.

Table 4: *WellSAT School Wellness Policy Comprehensiveness and Strength Scores, 2014-2015*

N = 176 WellSAT Scoring Scale = 0 – 100 points	Min.	Max.	$\bar{x}$ (SD)
Section 1: Nutrition Education and Wellness Promotion			
Comprehensiveness score	11.11	100	68.06 (21.14)
Strength score	0	100	47.22 (23.02)
Section 2: Standards for USDA School Meals			
Comprehensiveness score	0	100	54.14 (30.87)
Strength score	0	85.71	36.03 (28.19)
Section 3: Nutrition Standards for Competitive Foods			
Comprehensiveness score	0	100	43.54 (21.28)
Strength score	0	87.50	12.00 (21.62)
Section 4: Physical Education and Physical Activity			
Comprehensiveness score	0	76.47	24.47 (20.89)
Strength score	0	64.71	12.48 (15.20)
Section 5: Evaluation			
Comprehensiveness score	0	100	68.75 (25.42)
Strength score	0	100	31.53 (28.66)
Overall			
Comprehensiveness score	3.77	90.39	44.96 (19.35)
Strength score	1.89	75.47	22.92 (17.10)

WellSAT Overall and Subsection Scores and District Geographic Location

There were no statistically significant differences between Overall Strength scores and Rural ($\bar{x}$ = 23.33, SD = 17.20, t(174) = -0.48, p = 0.63) or Urban ($\bar{x}$ = 21.99, SD = 16.97, t(174) = -0.48, p = 0.63) locations. Similarly, there were no statistically significant differences among Overall Comprehensiveness scores and Rural ($\bar{x}$ = 45.06, SD = 18.84, t(174) = -0.10, p = 0.92) or Urban ($\bar{x}$ = 44.74, SD = 20.62, t(174) = -0.10, p = 0.92) locations. Mean Overall Strength scores were almost half of mean Overall Comprehensiveness scores for both Rural (Strength: $\bar{x}$ = 23.33, , SD = 17.20; Comprehensiveness: $\bar{x}$ = 45.06, SD = 18.84), and Urban (Strength: $\bar{x}$ = 21.99, SD = 16.97; Comprehensiveness: $\bar{x}$ = 47.44, SD = 20.62).

For rural locations, mean Comprehensiveness scores were highest for Nutrition Education and Wellness Promotion (NEWP) and Evaluation (E), and lowest in Physical

Education and Physical Activity (PEPA); for Urban locations mean Comprehensiveness scores were highest in the NEWP and Standards for USDA School Meals (US) sections, and similar to the Rural location, were lowest in the PEPA section. According to the t-test, both Rural and Urban Strength scores were highest in NEWP, and lowest in PEPA. With the exception of the NEWP WellSAT subsection, Strength scores were all lower when compared to Comprehensiveness scores in each WellSAT subsection.

Nutrition Standards for Competitive Foods and Beverages (NS) Strength was found to be not normally distributed for both Rural and Urban locations (Rural: Shapiro-Wilk = 0.64, $p = 0.00$; Skewness = 1.73, $SE = 0.22$; Kurtosis = 1.89, $SE = 0.44$. Urban: Shapiro-Wilk= 0.58, $p = 0.00$; Skewness = 2.32, $SE = 0.33$; Kurtosis = 4.76, $SE = 0.64$). Median scores for Rural ($n = 122$) and Urban ($n = 54$) locations were each 0; therefore, means are presented in Table 5 for comparison purposes. A Mann-Whitney U test revealed that similar to results from the independent-samples t-test; there were no statistically significant results between NS WellSAT Strength scores and Rural ($Md = 0$, $n = 122$) and Urban ($Md = 0$, $n = 54$) locations ($p = 0.96$). Table 5 presents results from the independent-samples t-tests for all subsections except NS Strength, as well as presents results from the Mann-Whitney U test conducted for associations between geographic location and NS Strength.

Table 5: *Independent-samples t-test among WellSAT Subsection Scores and Geographic Location*

WellSAT Section $N = 176$	Rural $\bar{x}$ (SD)	Urban $\bar{x}$ (SD)	df	t	p
Section 1: NEWP					
Comprehensiveness score	68.12 (21.04)	67.90 (21.55)	174	-0.06	0.95
Strength score	46.81 (23.44)	48.15 (22.22)	174	0.35	0.72
Section 2: US					
Comprehensiveness score	52.58 (31.13)	57.67 (30.27)	174	1.01	0.31
Strength score	37.11 (27.88)	33.60 (30.00)	174	-0.76	0.45
Section 3: NS					
Comprehensiveness score	43.34 (20.54)	43.98 (23.03)	174	0.18	0.85
Strength score*	12.29 (1.94)	11.34 (3.02)	-	-0.05	0.96
Section 4: PEPA					
Comprehensiveness score	25.17 (20.10)	22.89 (22.70)	174	-0.67	0.51
Strength score	13.33 (15.28)	10.57 (14.99)	174	-1.11	0.27
Section 5: E					
Comprehensiveness score	70.70 (23.11)	64.35 (29.78)	82.45	-1.39	0.17
Strength score	31.15 (28.62)	32.41 (28.99)	174	0.27	0.79
Overall					
Comprehensiveness score	45.06 (18.84)	44.74 (20.62)	174	-0.10	0.92
Strength score	23.33 (17.20)	21.99 (16.97)	174	-0.48	0.63

**Mann-Whitney U test*

WellSAT Overall and Subsection Scores and Free and Reduced Price Meal Eligibility

There were no statistically significant differences among the Overall Comprehensiveness of the policy in Low ($\bar{x}$ = 45.37, SD = 17.15); Middle ($\bar{x}$ = 44.87, SD = 20.72); and High ($\bar{x}$ = 45.01, SD = 19.87) levels of free and reduced price meal eligibility, $p = 0.99$. There were also no statistically significant differences among Overall Strength scores between Low ($\bar{x}$ = 23.35, SD = 15.84); Middle ($\bar{x}$ = 22.62, SD = 17.64); or High ($\bar{x}$ = 22.73, SD = 17.97) levels of students eligible for free and reduced price meals, $p = 0.97$. Overall WellSAT Strength scores were almost about half of Overall Comprehensiveness scores for Low (Strength: $\bar{x}$ = 23.35; Comprehensiveness: $\bar{x}$ = 45.37), Middle (Strength: $\bar{x}$ = 22.62; Comprehensiveness: $\bar{x}$ = 44.87), and High

(Strength: $\bar{x}$ = 22.73; Comprehensiveness: $\bar{x}$ = 45.01) Free and Reduced Price Meal Eligibility.

There were no statistically significant differences found among WellSAT subsection Comprehensiveness or Strength scores and Low, Middle, or High Free and Reduced Price Meal Eligibility. Comprehensiveness scores were numerically highest in Nutrition Education and Wellness Promotion (NEWP) and Evaluation (E) sections for all levels of Free and Reduced Price Meal Eligibility. Subsection Strength scores were numerically highest in NEWP as well, but were followed by Standards for USDA Child Nutrition Programs and School Meals (US) across groups.

Nutritional Standards for Competitive Foods and Beverages (NS) Strength was found to not be normally distributed for Low Free and Reduced Price Meal Eligibility (Shapiro-Wilk = 0.625, p = 0.00; Skewness = 1.82, SE = 0.32; Kurtosis = 2.23, SE = 0.62) Middle Free and Reduced Price Meal Eligibility (Shapiro-Wilk = 0.595, p = 0.00; Skewness = 2.24, SE = 0.32; Kurtosis = 4.61, SE = 0.62), and High Free and Reduced Price Meal Eligibility (Shapiro-Wilk = 0.627, p = 0.00; Skewness = 1.81, SE = 0.32; Kurtosis = 2.24, SE = 0.62). Although means are presented in Table 6 for NS Strength for all Low, Middle and High Eligibility, a nonparametric Kruskal-Wallis test was conducted to explore associations between Free and Reduced Price Meal Eligibility and NS Strength scores. There were no significant findings among Low (Md = 0, n =57), Middle (Md = 0, n = 57), and High (Md = 0, n = 57) district-wide percentages of students eligible for free and reduced price meals and NS Strength scores (p = 0.80).

Table 6 presents data from the ANOVA and Kruskal-Wallis tests run on the percentage of Free and Reduced Price Meal Eligibility and Overall and subsection WellSAT scores.

Table 6: *Means, Standard Deviations, and One-Way Analysis of Variance (ANOVA) for Free and Reduced Price Meal Eligibility on WellSAT Subsection Scores*

Variable $N = 171$	Low $N = 57$ (<62.80%) $\bar{x}$ (SD)	Middle $N = 57$ (62.81-76.33%) $\bar{x}$ (SD)	High $N = 57$ (>76.34%) $\bar{x}$ (SD)	Test statistic	p
Section 1: NEWP					
Comprehensiveness score	69.79 (17.66)	68.62 (22.23)	65.89 (22.50)	0.52	0.60
Strength score	48.54 (18.26)	47.39 (24.17)	45.42 (25.74)	0.27	0.77
Section 2: US					
Comprehensiveness score	55.39 (28.32)	54.89 (32.15)	52.38 (32.10)	0.16	0.86
Strength score	37.09 (27.38)	36.84 (28.05)	34.09 (29.79)	0.20	0.82
Section 3: NS					
Comprehensiveness score	45.29 (20.50)	41.88 (21.62)	43.75 (31.36)	0.37	0.69
Strength score*	13.27 (3.12)	10.19 (2.62)	12.39 (2.93)	0.44	0.80
Section 4: PEPA					
Comprehensiveness score	22.32 (19.19)	25.31 (22.57)	26.25 (21.37)	0.54	0.58
Strength score	11.55 (14.05)	12.87 (16.76)	13.39 (15.20)	0.22	0.81
Section 5: E					
Comprehensiveness score	71.05 (21.01)	67.98 (29.03)	67.98 (25.33)	0.28	0.76
Strength score	32.89 (28.41)	32.46 (30.97)	30.26 (27.85)	0.13	0.88
Overall					
Comprehensiveness score	45.37 (17.15)	44.87 (20.72)	45.01 (19.87)	0.01	0.99
Strength score	23.35 (15.84)	22.62 (17.64)	22.73 (17.97)	0.03	0.97

**Kruskal-Wallis test employed due to positively skewed data*

WellSAT Overall and Subsection Scores and Academic Status

Mean Comprehensiveness scores were numerically highest in the Nutrition Education and Wellness Promotion (NEWP) and Evaluation (E) sections, while Strength scores were numerically highest in the NEWP and Standards for Competitive Foods and Beverages (US) section. There were no statistically significant differences among mean WellSAT subsection scores and Academic Status, with the exception of mean Overall scores. There was a statistically significant difference at the $p < 0.05$ level in mean

WellSAT Overall Comprehensiveness and Strength scores for the three Academic Status groups (Comprehensiveness: $p = 0.046$; Strength $p = 0.016$).

Post-hoc comparisons using the Tukey HSD test indicated that mean Comprehensiveness scores for Poor Academic Status ($\bar{x} = 48.23$, SD = 21.18) were significantly higher than Average Academic Status ($\bar{x} = 40.08$, SD = 18.09). Mean Comprehensiveness scores for Exceptional Academic Status ($\bar{x} = 46.71$, SD = 17.50) did not differ from either Poor or Average Academic Status. Post-hoc comparisons also indicated that mean Strength scores for Poor Academic Status ($\bar{x} = 26.85$, SD = 19.31) were significantly different from Average Academic Status ($\bar{x} = 18.17$, SD = 14.05). Mean Strength scores for Exceptional Academic Status ($\bar{x} = 23.67$, SD = 16.39) did not differ from either Poor or Average Academic Status.

Nutritional Standards for Competitive Foods and Beverages (NS) Strength was found to not be normally distributed for Poor Academic Standing (Skewness = 1.27, *SE* = 0.31; Kurtosis = 0.42, *SE* = 0.61), Average (Skewness = 3.56, *SE* = 0.31; Kurtosis = 13.01, *SE* = 0.60), and Exceptional Academic Status (Skewness = 1.783, *SE* = 0.34; Kurtosis = 2.17, *SE* = 0.66). A nonparametric Kruskal-Wallis test was conducted to examine associations between school district Academic Status and NS Strength scores. Median scores for districts with Poor, Average, and Exceptional academic standing were each 0, therefore means and standard deviations are presented in Table 7. There was a significant difference found between Academic Status and NS Strength (p = 0.004). A post-hoc Mann-Whitney U test revealed that school districts with Poor Academic Status ($\bar{x} = 16.50$, SD = 23.16) had significantly higher NS Strength scores than those with Average Academic Status ($\bar{x} = 5.42$, SD = 15.37) at the $p < 0.05$ significance level ($p =$

0.01). School districts with Exceptional Academic Status ($\bar{x}$ = 14.22, SD = 24.37) had significantly higher NS Strength scores than districts with Average Academic Status (p = 0.013).

Table 7 presents results from the ANOVA, and Kruskal-Wallis tests run on the school districts Academic Status and Overall and subsection WellSAT scores.

Table 7: *Means, Standard Deviations, and One-Way Analysis of Variance (ANOVA) for Academic Status on WellSAT Subsection Scores*

Variable N = 176	Poor N = 64 $\bar{x}$ (SD)	Average N = 61 $\bar{x}$ (SD)	Exceptional N = 51 $\bar{x}$ (SD)	Test statistic	p
Section 1: NEWP					
Comprehensiveness score	69.62 (22.59)	63.57 (20.60)	71.46 (19.28)	2.24	0.11
Strength score	49.31 (25.95)	42.62 (20.81)	50.11 (21.13)	1.90	0.15
Section 2: US					
Comprehensiveness score	58.71 (32.01)	46.37 (30.71)	57.70 (28.29)	3.04	0.05
Strength score	41.49 (30.29)	30.21 (25.30)	36.13 (27.90)	2.55	0.81
Section 3: NS					
Comprehensiveness score	46.19 (23.32)	38.32 (18.06)	46.45 (21.37)	2.87	0.06
Strength score*	16.50 (23.16)	5.42 (15.37)	14.22 (24.37)	11.20	0.004
Section 4: PEPA					
Comprehensiveness score	28.93 (22.73)	20.21 (19.90)	23.96 (18.82)	2.80	0.06
Strength score	15.77 (16.58)	9.50 (13.65)	11.92 (14.62)	2.76	0.07
Section 5: E					
Comprehensiveness score	69.93 (27.88)	67.62 (25.55)	68.63 (22.27)	0.13	0.88
Strength score	35.94 (32.39)	28.28 (26.41)	29.90 (25.99)	1.11	0.34
Overall					
Comprehensiveness score	48.23 (21.18)	40.08 (18.09)	46.71 (17.50)	3.14	0.046
Strength score	26.85 (19.31)	18.17 (14.05)	23.67 (16.39)	4.24	0.016

**Kruskal-Wallis test employed due to positively skewed data*

National and State Comparisons

Figure 2 shows how school district wellness policies in the state of Oklahoma compare to the most recent nationwide evaluation of school district wellness policies (Bridging the Gap, 2013). Nationwide, the overall mean WellSAT Comprehensiveness Score is 48, while the overall mean WellSAT Strength score is 28, slightly higher than

overall mean Oklahoma Comprehensiveness and Strength scores of 44.96 and 22.92. The asterisk indicates that the original 96-item version of the WellSAT was used.

Figure 2: *Comparison of Nationwide WellSAT scores to Oklahoma (Bridging the Gap, 2013)*

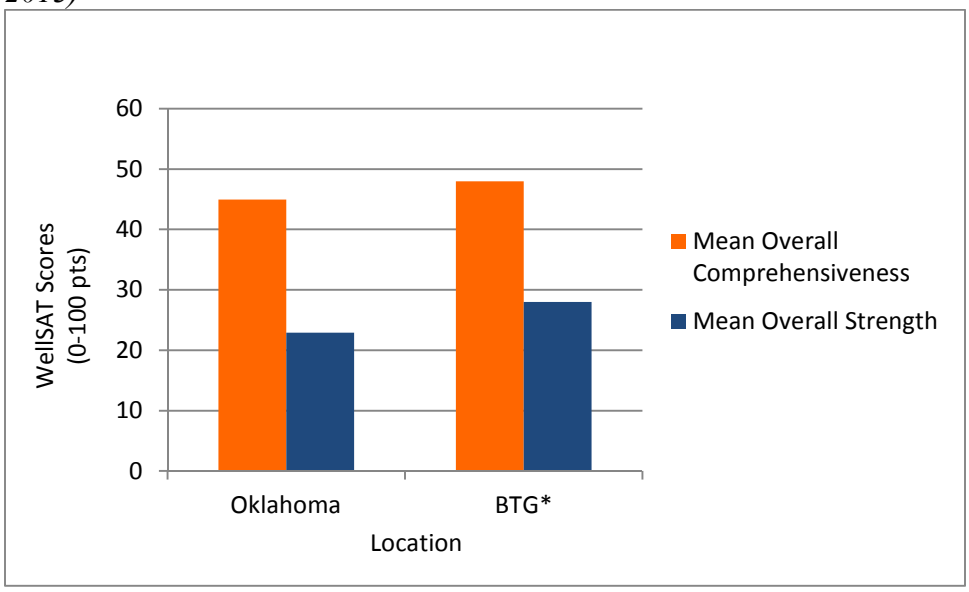
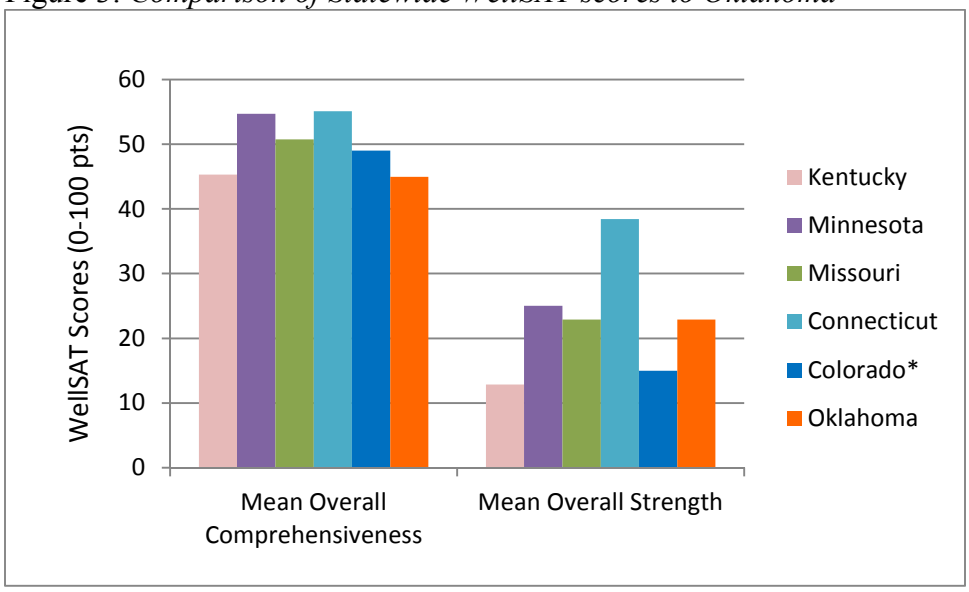


Figure 3 reveals how Oklahoma compares with other states that have used the WellSAT or earlier versions of the WellSAT to evaluate their school district wellness policies. Again, the asterisk indicates that the earlier 96-item WellSAT was used. Mean overall WellSAT scores for Kentucky for Strength and Comprehensiveness were 12.86 and 45.3 (Baker, 2014). Mean overall Strength and Comprehensiveness WellSAT scores for Missouri were 22.88 and 50.73 (Staubach, 2011). Mean overall Strength and Comprehensiveness WellSAT scores for Connecticut were 38.43 and 55.09 (Schwartz et al., 2012). Mean overall Strength and Comprehensiveness WellSAT scores for Minnesota were 25.0 and 54.7 (Hoffman, 2014). Lastly, mean overall Strength and Comprehensiveness WellSAT scores for rural school districts in Colorado were 15 and 49 (Belansky et al., 2009).

Figure 3: *Comparison of Statewide WellSAT scores to Oklahoma*



CHAPTER V

DISCUSSION

The next section will discuss the findings disclosed in the previous chapter. The first section will discuss policy sample observations, examine the extent to which this sample of school districts in Oklahoma have complied with the mandates of the WIC Reauthorization Act and the HHFKA, as well as a discussion on the development of these policies. Discussion of these findings will be followed by an extensive examination of the strength and comprehensiveness of the five individual subsections of the WellSAT as well as the overall scores of this tool and associations between the socio-demographic variables of interest to this study. The limitations of this study will be presented, followed by potential barriers to implementation, recommendations for policy improvement, and lastly the implications and conclusion for public health officials, school districts, key community stakeholders, and parents.

Policy Characteristics

Although most schools submitted policies to be evaluated by OSDE, at times these policies were incomplete. For example, at least one school district submitted a policy that was clearly missing pages; in one instance only the odd numbered pages of a school district wellness policy were submitted. Another example of an incomplete policy submission was that at least one district submitted a policy that was one page long, but again, was clearly missing the continuation of the policy. A final example of an incomplete submission that was seen somewhat often was that some school wellness policies would mention having nutrition standards for competitive foods and in some instances for school meals; however there was no mention of what exactly these standards were, and no attached list of nutrition standards for these foods to the policy.

Another observation of this sample of school wellness policies is that many school wellness policies that were evaluated seemed identical in their content. It appears that many school districts used a pre-existing template policy, potentially in order to comply with federal mandates in that they were required to have some type of wellness policy. At least 30 policies (~19%) of represented school districts used one of the three template policies seen throughout the evaluation process (see Appendices H-J for template policies).

A final observation of this sample of wellness policies is that some policies had concrete statements regarding wellness, but also had statements listed under vague headings such as “Set Goals,” “Optional Statements,” or “Planned Improvements.” This made identifying mandatory or optional statements more difficult than statements using weak language. Regardless, results and findings are presented below.

District Compliance with Federal Mandates

The WIC Reauthorization Act mandates that schools develop wellness goals related to nutrition and physical activity in a written policy form by the school year 2006. Of the original sample (n= 176) of school districts needing policy review, 98.78% and an additional 12 school districts forwarded their policies to OSU-E, indicating that most schools were compliant with the WIC Reauthorization Act in that they have some type of wellness policy in place.

Although schools may have wellness policies in place, many policies submitted appeared to be similar in content and may have been taken from some type of template policy. There were three different policies that recurred multiple times, and appeared to be identical to OSDE's model wellness policy available online, or contained fragments of this policy (OSDE, 2006). In some cases, only one or two pages of this model policy were submitted by school districts; but were oftentimes submitted and considered as the districts complete wellness policy (see Appendix H). This is unfortunate because although template and locally developed policies were not compared in this study, it is suggested that locally developed policies are more beneficial as they may be tailored to individual schools or school districts, making them stronger and more comprehensive than template policies (Smith, Capogrossi, & Estabrooks, 2012). Regardless of which type of policy is used, it is clear that school districts in Oklahoma are still in need of guidance in order to develop policies that are both comprehensive and strongly worded, as will be discussed below.

Subsection WellSAT Scores and Suggestions for Improvement

To reiterate, there are 5 major domains that must be included in school wellness policies which are: Nutrition Education and Wellness Promotion, Standards for Child Nutrition Programs and School Meals, Standards for Competitive Foods, Physical Education and Physical Activity, and finally, Evaluation of the wellness policy. Compliance to these policy domains for school districts are as follows:

1) Nutrition Education and Wellness Promotion: Most schools have some type of wellness policy statement that indicates they are providing some of type nutrition education to students (NEWP 1); however, most of these policies do not use strong, mandatory language. Interestingly, most schools demonstrated some type of involvement of the school board, families, students and community members in their attempt to meet wellness goals (NEWP 6), as well as the existence of a Health and Wellness Advisory Committee, showing moderate compliance to mandates set by the HHFKA requiring transparency and stakeholder involvement. Combined, the mean Comprehensiveness and Strength scores of this section were the highest rated section of any of the WellSAT subsection. These findings align with those nationwide and in Colorado school policies (Bridging the Gap, 2013; Belansky et al., 2009).

2) Standards for Child Nutrition Programs and School Meals: Most school districts mentioned having standards for child nutrition programs and school meals; however, many times lacked strong wording. Often, policies were rated with a WellSAT score of "1" because the policy stated that their nutrition standards for school meals met the Dietary Guidelines, but food served did not exceed these and did not have specific requirements (1% milk, non-fried vegetables, et. cetera). Often, scores for this subsection

could be improved simply by mentioning an adequate time to eat breakfast (at least 15 minutes) and lunch (at least 20 minutes), as well as a pleasant environment in which to consume these meals (Rudd Center for Food Policy and Obesity, n.d.).

3) Nutrition Standards for Competitive Foods: Most schools had some type of standards for competitive foods; again weak or suggestive wording was often used. This type of language may leave schools room for interpretation as to what types of competitive foods are available to students and the location and time of sale. The strength of this domain was the lowest scored subsection of the WellSAT, similar to other studies (Belansky, et al., 2009; Baker, 2014).

Oklahoma Senate Bill 265 prohibits selling foods of minimal nutritional value in areas where reimbursable meals are sold, creating some type of restriction for competitive foods. Time and place restrictions are a step in the right direction; however, could be made more rigorous. Oklahoma policies also need to focus on the type of competitive foods offered, as some may not be within the definition of an FMNV, but may be just as unhealthy such as doughnuts and Slim Jims. If standards related to type of and access to competitive foods were tightened it would likely greatly increase the strength of policies (OSDE, 2006).

Low WellSAT scores for Standards for Competitive Foods are unfortunate for many reasons. Firstly, other states have been successful using policies to decrease the availability of unhealthy competitive foods in schools (Schwartz et al., 2012; Wojcicki and Heyman, 2006). Secondly, and most important to the childhood obesity crisis; prior investigations indicate that states with laws regulating competitive foods in schools may reduce adolescent BMI change if they are comprehensive, use specific, strong wording,

and are mandatory for all grade levels which may therefore have a positive effect on childhood obesity rates (Taber, Chriqui, Perna, Powell, & Chaloupka, 2012).

4) Physical Education and Physical Activity: Most school districts had policy statements that encompassed some type of goal for physical education and/or physical activity (PEPA1); although, again these statements lacked strong wording. Most school district policies had statements that required students in elementary schools (K-5) to engage in minimal amounts of physical education (PEPA 2), however very few schools mentioned physical activity requirements for secondary school students, and even fewer school districts met the recommendations of 150- 225 minutes per week for students (CDC, 2011b; NASPE, n.d.). Only four out of 176 school districts (2.27%) require that all grade levels engage in the NASPE and CDC recommendations of physical activity per week, while an additional 6 of 176 school districts (3.41%) met these recommendations for elementary school-aged students, but not for other grade levels.

Oklahoma Senate Bill 312 indicates that schools must provide 60 minutes of physical activity per week for students in grades K-5, which may be reason for the lack of schools focusing solely on K-5, as well as the small amount of schools meeting physical activity recommendations (OSDE, 2006). Similar to school wellness policies in Kentucky and Minnesota, the comprehensiveness and strength of this domain was one of the weakest areas (Baker, 2014; Hoffman, 2012). Low scores in this domain are bothersome as introducing youth to physical activity at a young age often leads to the lifelong development of an active lifestyle, and is one of the most modifiable elements of weight maintenance (Kjønniksen et al., 2005; CDC, 2011b).

5) Evaluation: Interestingly, comprehensiveness for this section had the highest WellSAT score. The strength score for this section was relatively low, but compared to other subsection scores was relatively high on a score out of 100 points. Similar to previous subsections, it appears that this sample of wellness policies used suggestive and weak language when drafting policy statements related to the evaluation and revision of wellness policies. Higher WellSAT scores for this section may be because policies often mentioned dates for the implementation of food policies (a component of the OSDE model policy, Appendix H) as well as having a committee that met to make recommendations for policy improvement, but due to weak policy language, this was only for certain practices and there was no indication that recommendations were indicative of policy revision.

Overall, the weakest domains of Oklahoma school district wellness policies for both strength and comprehensiveness were Nutritional Standards for Competitive Foods and Physical Education and Physical Activity, which is consistent with previous research (Hoffman, 2014; Baker, 2014). These findings are disturbing because the combination of nutrition and physical activity are key influences in weight maintenance and weight loss, and therefore the prevention of childhood obesity (CDC, 2011b). Fortunately, there exist strategies to improve these scores. If school districts are provided with an idea of their policy's status, and guidance to improve their scores, they may be able strengthen and make these domains more comprehensive. State and district policies that are strong and comprehensive often help predict policy implementation at the school level, and therefore impact children and youth attending (Schwartz et al., 2012).

Mean Overall WellSAT Strength and Comprehensiveness Scores

To address Research Question 2, the mean Overall WellSAT Strength score for Oklahoma school district wellness policies in this sample was 22.96; a considerably low score for a scale that can range from 0-100 points. A low mean Strength score indicates that most policies use vague or weak language, creating statements that may be merely suggestive of action, enforcement and implementation by school districts. This finding is comparable to studies conducted in other states and nationwide that used the WellSAT to assess the strength of their state's school wellness policies (Metos et al., 2007; Belansky, et al., 2009; Bridging the Gap, 2009; Staubach, 2011; Hoffman, 2012; Schwartz et al., 2012; Baker, 2014; Bridging the Gap, 2013). WellSAT overall mean Strength scores in both Missouri as well as Minnesota were almost identical to the findings of this study; these were $\bar{x}$ = 22.88, and $\bar{x}$ = 25.0, respectively (Staubach, 2013; Hoffman, 2012).

The strength of Oklahoma school district wellness policies is also similar to nationwide findings. Using the lengthened 96-item version of the WellSAT, the mean strength score for a nationally representative sample was 28 of 100 points (Bridging the Gap, 2013). Encouragingly, since the initial evaluation of school wellness policies in 2006, Bridging the Gap researchers have seen slight improvements in nationwide strength scores (Bridging the Gap, 2013). This suggests that with time and policy improvements, strength scores and therefore the likelihood of implementation also have the potential to improve for school districts in Oklahoma.

Overall mean Comprehensiveness was 44.96, about double that of Strength. To answer Research Question 1, this score is relatively low on a scale from 0-100 points. When the overall mean Comprehensiveness score for school wellness policies for

districts in Oklahoma is compared to other states that have used the WellSAT to examine the comprehensiveness of their state's school district wellness policies, Oklahoma has scored the lowest (Metos & Nanney, 2007; Belansky et al., 2009; Staubach, 2013; Hoffman, 2012; Baker, 2014). This is also true when comparing the comprehensiveness of Oklahoma school district policy scores to overall mean comprehensiveness scores nationwide (Bridging the Gap, 2013). Mean Comprehensiveness scores for other states range from 45.3-55.09, with most scores hovering around 55 out of 100 points. Clearly, these scores are relatively low and a public health focus should be to improve these scores in Oklahoma.

A disturbing observation among subsection and overall WellSAT scores is that some districts scored the minimum WellSAT score of 0 for both Strength and Comprehensiveness. This indicates that even though the school had a policy, the policy did not mention anything required by the federally mandated school wellness policy acts, other than satisfying the requirement that a policy be in place. This is concerning because students that attend these institutions may not be receiving any form of nutrition education or physical activity and there may not be any standards for any foods sold on school grounds other than lack of FMNV, potentially creating a very unhealthy school environment. The HHFKA and the promise for increased stakeholder involvement may address this issue, as districts may be held more accountable in the future for wellness policy quality.

As this study demonstrates, mean overall and subsection WellSAT policy scores are relatively low for school districts in Oklahoma. While some policy domains are mildly comprehensive in their efforts to meet requirements set forth by the federal

government, statements may be weakly worded. Low strength and comprehensiveness scores may demonstrate that although the WIC Reauthorization Act and HHFKA were designed to impact the health status of youth by improving the school wellness environment, they may not be having the desired effect. Districts that have stronger and more comprehensive policies are often more successful when it comes to the implementation and enforcement of these policies, where policies that are not very comprehensive and lack strong wording can lead to misinterpreted implementation of the policy (Schwartz et al., 2012).

School District Geographic Location

Although research suggests differences in policy quality dependent on school district geographic location, this study revealed the contrary. Previous research indicates that school districts in urban locations are more likely to have policies that use stronger language and are more comprehensive than those in rural locations; however, these findings were inconsistent for the state of Oklahoma (Metos & Nanney, 2007; Nanney et al., 2013). For example, in a study of rural schools in Utah, urban schools were more likely to definitively require competitive food policies than rural schools (Metos & Nanney, 2007). To address Research Question 2, the findings presented in this study for the state of Oklahoma, demonstrate contrasting results in that there were no significant differences between mean overall or subsection WellSAT policy comprehensiveness or strength scores and geographic location.

Although these results contrast the majority of previous research reviewed, findings for Oklahoma in fact mimic those of a policy evaluation study conducted in Minnesota (Hoffman, 2012). The only difference in the quality of school wellness

policies and district geographic location that was observed by Hoffman (2012) was that rural schools had significantly greater mean Comprehensiveness scores than urban or non-rural districts. The finding that geographic location was not significantly related to policy quality for the state of Oklahoma is interesting because other studies that found significance postulate that urban school districts may have stronger competitive food policies due to characteristics such as more resources, past experience regarding the issue, administration experience, as well as others (Metos & Nanney, 2007). The lack of significance found among geographic location may be attributable to the frequent use of template policies among school districts in Oklahoma. Many school districts in both rural and urban locations submitted a template policy which was seemingly identical in content. This may contribute to similar mean Strength and Comprehensiveness scores observed in this study among geographic location. Regardless of location, many school wellness policies in Oklahoma appear to be in sub-optimal condition and in need of improvement.

Free and Reduced Price Meal Eligibility

Perhaps one of the most heavily studied variables of school wellness policy research is the use of free and reduced price meal eligibility as a proxy for school district socioeconomic status (Metos & Nanney, 2007; Belansky et al., 2009; Hoffman, 2014; Schwartz et al., 2012; Baker, 2014). This study found no significant differences among Low, Middle, and High student eligibility for free or reduced price meals and WellSAT comprehensiveness or strength scores. This finding contrasts previous research out of Utah, Connecticut, and Minnesota, that found that districts with a higher percentage of students eligible for free or reduced price meals consistently were more likely to mandate

policy statements and therefore have overall stronger policies (Metos & Nanney, 2007; Schwartz et al., 2012; Hoffman, 2014). However, this finding is similar to findings in Kentucky that also found no significant differences among free and reduced price meal eligibility and policy quality (Baker, 2014).

Hoffman (2012) made the association that, for school districts in Minnesota, as the percentage of students eligible for free and reduced price meals increased, comprehensiveness and strength did as well. Metos and Nanney (2007) suggest that school districts serving the greatest number of low-income students may feel greater responsibility to enforce policies as these students may be more vulnerable to obesity and other health complications. Regardless, there was no observable or significant relationship among this variable and policy quality in this sample of Oklahoman school district wellness policies.

It is interesting to see how different states defined percentage groups for free and reduced price meal eligibility. For example in Minnesota, "Low Eligibility" was defined as less than 20% of students eligible, while "Medium Eligibility" was defined as between 20% and 59.9%, and "High Eligibility" was defined as greater or equal to 60% of students eligible for free or reduced price meals (Hoffman, 2012). In this study, these elements were defined much differently: "Low Eligibility" was set at less than 62.8%, "Middle" was 62.81%-76.33% and "High" was greater than 76.24% of students eligible for free or reduced price meal programs. It seems plausible that the overall economic status of different states may have an effect on this grouping. If Oklahoman school districts had been broken up into similar percentage groups, this may have impacted the data differently, and comparable relationships between this variable and WellSAT scores

may have been observed. Future research could define the parameters of these categories for full comparison purposes.

To answer Research Question 4, school districts with higher percentages of students eligible for free and reduced price meals in Oklahoma did not have significantly have higher Comprehensive and Strength scores, or stronger policy statements within certain WellSAT domains such as Nutritional Standards for School Meals and Standards for Competitive Foods than those districts with low or medium eligibility. Of 100 possible points, mean overall WellSAT Comprehensiveness scores are less than 50 points for all free and reduced price meal eligibility levels, and overall Strength scores are below 25 points, indicating that 1) schools providing education to all students regardless of socioeconomic status are addressing less than half of the requirements set forth by the WIC Reauthorization Act and the HHFKA; and 2) regardless of family income, Oklahoman school districts are mandating about a quarter of these requirements, and less than half of the statements that are actually mentioned within the policy. Low scores and the lack of significance among policy quality and free and reduced price meal eligibility found in this study could again be partly attributable to the use of template policies, as discussed previously. Clearly, there is room for school districts in Oklahoma to improve wellness policy quality regardless of free and reduced price meal eligibility or socioeconomic status.

School District Academic Status

Less studied in school nutrition policy research, are comparisons between school district academic performance (status) and WellSAT scores. A school district's academic status was the only independent variable that was found to be significant among

WellSAT policy scores. To answer Research Question 3, the results of this study are surprising. Results indicate a significantly higher Strength score for Nutrition Standards for Competitive Foods in districts with "Poor" Academic Status compared to those with "Average" Academic Status, as well as higher scores for those districts with "Exceptional" Academic Status compared to those with "Average" Academic Status. Similar results can be observed in mean Overall Strength and Comprehensiveness scores, in that these were also significantly higher for districts with "Poor" Academic Status compared to those with "Average" Academic Status. These findings somewhat contrast what has been observed in Georgian school districts, where those with stronger academic performances had stronger and more comprehensive policy statements only for nutrition education and school-based activities (Lyn et al., 2012).

An explanation for these findings in the state of Oklahoma is difficult to postulate. It seems unlikely that school districts with poor academic statuses would devote a significant amount of time to creating strong and comprehensive nutrition and physical education goals, when their efforts likely should be focused on adhering to educational demands and improving their students' academic performance as indicated by their Report Card grade. Perhaps, districts with Poor academic statuses are attempting to boost their academic performance by any means they can, including the improvement of their wellness policy. On the other hand, districts with Exceptional statuses may have higher competitive food standards because they may have more time to devote to creating a strongly worded wellness policy because they are already faring well academically. For comparison purposes of this study, policy evaluation in Georgia was the only study found and reviewed that used Academic Status as an independent variable. More studies using

academic status as an independent variable for policy research as well as future research that examines this association more in-depth would provide some insight as to reasons why districts with Poor Academic Standing had higher WellSAT scores than districts with Average statuses.

Nationwide and State Comparisons

Comparisons between mean overall Strength and Comprehensiveness scores for Oklahoma, select states and nationwide reveals that in this sample of school district policies, Oklahoma policies are the least comprehensive. This may be due to differences in expectations for mandatory school wellness policy statements in Oklahoma. Strength and Comprehensiveness scores would likely increase if "Optional Policy Statements" were required by districts (OSDE, 2006; Schwartz et al., 2012). Oklahoma had relatively strong Strength scores when compared to other states; however, out of 100 possible points all state school district wellness policies could benefit by strengthening their policy's language.

Barriers to Development and Implementation

District policies contain a substantial amount of elements required by the WIC Reauthorization Act and HHFKA, but often times lack strong wording. Lack of strong wording could make the implementation of said policies questionable, as well as the intended effects these acts were designed to have (Schwartz et al., 2012). When questioned, school leaders identified weak policy language, other priorities of greater concern, and lack of funding as barriers faced when developing and implementing local school wellness policies (Belansky et al., 2009; RWJF, 2009). Determining strategies

that address these barriers is of significant need in order to improve the impact that the development and implementation were designed to have on youth health status.

As mentioned, school districts could potentially improve their policies by developing a local wellness policy instead of using a template policy (Smith et al., 2012). Furthermore, minimum Oklahoma policy statements could be strengthened as well as added to, in order to make what is minimally required by school districts more comprehensive and strong. The model policy provided by OSDE provides a good opportunity for improvement because within this policy there are both "minimum" statements required, as well as "optional" policy statements (OSDE, 2006). OSDE should review these optional statements and consider making them mandatory, which likely would improve WellSAT evaluation scores. This is especially important for School Meals and Competitive Foods, as states with strong laws regarding these domains often have a greater rate of implementation than those states without laws related to these elements (Wall, Litchfield, Carriquiry, McDonnell, & Woodward-Lopez, 2013; Taber et al. 2013). This could improve both district WellSAT scores, as well as the likelihood of enforcement; as strong and comprehensive policies are more indicative of implementation (Schwartz et al., 2012). Another strategy that has worked for other states and should be considered in Oklahoma would be to offer incentives for schools to remove unhealthy competitive foods and replace these with unprocessed, healthy foods (Long et al., 2010).

School districts face many challenges beyond adhering to the WIC Reauthorization Act and HHFKA, as pointed out by Belansky and colleagues (2009). Other priorities were of greater concern to many school principals interviewed in

Colorado, such as improving academic achievement and adhering to No Child Left Behind (Belansky et al., 2009). Other barriers mentioned were lack of resources, lack of knowledge of required policy content, and lack of funding. The continuation of school wellness policy evaluation provides one way for schools to improve policy content and quality. Recognizing school districts that are making positive changes to school wellness environments, as well as identifying wellness areas of concern is one method that can allow schools to see how they "measure up" to other districts, therefore offering an opportunity for improvement.

One strategy that could be used would be to promote school wellness policy enhancement to community leaders and parents of students within the district. Although the school district may lack certain resources such as time and money, getting individuals together who express an interest in the health and wellness environment of the school where their children attend could potentially attenuate these barriers, and aid in the enforcement of the completed policy. Promotion of the policy and the things the wellness environment have to offer (such as Farm-to-School, or other nutrition-related activities) could also be done through biweekly or monthly newsletters sent home to parents. Hopefully, with the proper implementation of the HHFKA, community members will be more involved with policy development, implementation, and revision.

Improvement of the school food environment through strong and comprehensive policies may in the long term address the lack of funding school principals see as a barrier. Although, the development of a school wellness policy may be time consuming, especially with the many other priorities these institutions face, the improvements made

to the nutrition environment could increase NSLP participation, which would in turn provide some additional revenue for schools (Wojcicki & Heyman, 2006).

Strengths and Limitations

At present, this is the only sample of school wellness policy evaluations in the state of Oklahoma. A strength of this study is that currently it is unique in that it is the sole examination of policy quality in Oklahoma. Nevertheless, future longitudinal studies would allow for observations in policy improvement, as well as ensure that the general lack of associations between socio-demographic characteristics and policy strength and comprehensiveness seen in this study are not due to confounding factors.

Another strength of this study is that it uses a large sample size (n = 176), and includes the two largest school districts, and 5 of the top 10 largest districts in Oklahoma (based on enrollment), but unfortunately does not encompass any of the 10 smallest school districts in the state (OSDE, 2012). The inclusion of some of the largest school districts in Oklahoma is a significant strength because there was a large difference in the number of rural (n =122) and urban (n =54) school district policies evaluated in this sample. Including larger districts in a mostly rural state gives a better and nonbiased idea of wellness policy quality and the potential impact on the students residing in both types of geographic locations. This could also be a limitation of this study because the sample represents slightly less one third of school districts in Oklahoma, meaning that this sample may not be a full representation of policy quality, content, and socio-demographic characteristics throughout the state. Future studies should focus on the evaluation of all school district wellness policies in Oklahoma, in order to be fully representative of the state.

A limitation may be that juvenile justice programs, residential child care institutions and private charter schools were not used in this sample due to lack of socio-demographic data for these institutions and the desire to keep the sample fairly uniform. This may be a limitation because some of these institutions may participate in school meal programs and have wellness policies. This may be a potential bias of the researchers; however, because these are not necessarily held to the same standards as public schools, these institutions could be an area of future school wellness policy research.

A limitation of the WellSAT, or evaluation tool selection for this study, is the lack of research on the inter-rater reliability (IRR) of the tool. Although the early version of the WellSAT has good psychometric properties in that it has been shown to be a valid and reliable instrument; in this study, trained coders initially had difficulty establishing a good WellSAT overall and sub sectional IRR. Regardless, the WellSAT is the only valid and reliable assessment tool for the evaluation of school wellness policies, and the use of it in Oklahoma school policy examination is a strength of this study.

Another potential issue with school wellness policy research and policy research in general is whether or not these policies are actually being enforced and implemented as they are written. A policy may be strong and comprehensive, but there is no way to know for sure from the written policy if these statements are indeed being translated as written into action and enforced by educators within schools. Future wellness policy research should focus on the evaluation as well as the enforcement and implementation of school policies.

The same can be said for policies and practices that are unwritten in policies, but are considered "normal" and practiced in schools. Measuring the implementation of policy statements could be accomplished by primarily evaluating wellness policies, followed by visiting school sites, and conducting interviews with school principals, key stakeholders, parents, and students in order to determine if local policy statements developed by school districts are indeed being implemented as written. Another method that could be employed in the future, similar to the processes discussed above is the use of the WellSAT-I (WellSAT- Implementation). This tool uses observation and interviews to examine the enforcement and implementation of policy statements. Unfortunately the WellSAT-I is not available to the public for use at this time; the Yale Rudd Center is still in the process of pilot testing it and potentially releasing this tool at a future date (Baker, 2014).

A final limitation to this study is that it was conducted prior to the Smart Snacks in Schools legislation. Smart Snacks in Schools is a set of stringent nutrition requirements for all foods sold in schools that align food at school closer to IOM standards, or the gold standard of school food nutrition (USDA, n.d.). These regulations help ensure healthy food is being offered to children by promoting fruit and vegetables and placing limits on calories and sodium (Appendix B). WellSAT Nutrition Standards for Competitive Foods and Overall policy scores will likely be impacted once this Act goes into effect, as these requirements are federally mandated. Despite the enactment of this legislation, this study provides Oklahoma school districts with the baseline status of their school wellness policy regarding wellness-related activities they are doing well at, and things that can be improved upon.

Implication of Findings

The recent focus on school nutrition environments by public health experts and government officials, indicate many important implications regarding school wellness policy research. The purpose of this study was to inform public health experts, government officials (including OSDE), researchers, school board members, key stakeholders, parents, and potentially students the quality and status of their policy, when measured to the gold standard for school nutrition policy. This study also focused on socio-demographic variables, and potential discrepancies in policy quality due to these, that may have needed to be addressed. Due to a standardized, reliable evaluation instrument used in this study findings on the status of school wellness policies in Oklahoma can also be compared to other policies nationwide and in other states.

Results presented in this study assure districts that have made positive changes to the school wellness environment that they have been successful, or are headed in the right direction (Hoffman, 2014). Results also allow districts that have not made these changes according to their policy to see how they compare to other districts, and where they can improve. OSDE may choose to identify "champion districts" or those districts that have successfully adhered to the requirements set forth by the WIC Reauthorization Act and HHFKA, which would allow other districts to identify areas for improvement, as well as learn how champion schools have managed to positively change their nutrition and wellness environments and how they can as well. In the future, focus groups among educators and community members could be held to further identify methods of policy and implementation improvement.

Results may indicate where potentially increased federal requirements are necessary (such as the HHFKA enhancing requirements of the WIC Reauthorization act). Policy makers in Oklahoma may now be informed of the status of Oklahoma wellness policies alone and compared to nationwide and to other states using a reliable instrument. Mean scores for both strength and comprehensiveness that are below many other states, as well as below mean scores nationwide, provide significant evidence as indicated that support the revision and enhancement of school district wellness policies in Oklahoma schools. Therefore, public health officials can take these results and use their expertise to develop, enhance, implement, evaluate, and revise school district policies in order to improve school environments, particularly the physical activity and competitive food environment (Hoffman, 2012). Ultimately, the goal of this study and the goal of the federal laws requiring school wellness policies should be to evaluate the impact of these policies related to nutrition and physical activity standards on the health status of youth and the childhood obesity epidemic.

Recommendations

There have been many methods suggested to improve school district wellness comprehensiveness and strength made throughout this study. A brief synopsis of these recommendations designed for public health experts, government officials, key community stakeholders, parents, and students interested in improving local wellness policies and environments include:

- Oklahoma school district policy language must not be suggestive; this creates issues with policy interpretation of what is actually required. Policies must be

specific and straightforward so that they can be easily interpreted and implemented as written.

- Policy makers in Oklahoma should consider enhancing the model policy available online. Consideration should be given to making "Optional" policy statements mandatory; which would likely make the policy more comprehensive.
- Districts develop local wellness policies, tailored to their individual needs, rather than use a template policy.
- Districts can make small changes in their policies to improve comprehensiveness such as mentioning: specific grade level nutrition education activities (NEWP1); time and environment for school meal consumption (US4 and US6); access to free water (NS15); physical activity opportunities for middle and high school students (PEPA3 and PEPA4); and that the policy will be implemented (E1).
- Districts should increase physical activity requirements and investigate methods of incorporating nutrition and physical activity into core classes such as mathematics and English.
- Districts should look to "champion" districts and share ideas and resources in order to develop stronger and more comprehensive policies.
- Districts should offer some type of nutrition training for teachers and food service personnel, so that these individuals are better equipped to educate students on the importance of diet and physical activity on obesity.
- Districts should develop standards for competitive foods, remove unhealthy versions of these, and replace them with nutrient dense competitive foods.

- Districts should actively promote community involvement of wellness policy development, implementation, evaluation, and revision.

Conclusion

As the childhood obesity epidemic spreads, one prevention method may be the use of institutional nutrition and physical activity policies to promote healthy lifestyles. Schools can be considered one of these locations, where policies can impact youth. The WellSAT proved to be an effective tool in the systematic and comprehensive evaluation of Oklahoma school district wellness policies. The use of the WellSAT in Oklahoma school policy evaluation successfully demonstrated the status of wellness policies which may help to lessen the gap between understanding youth obesogenic behaviors and their environments. Public health experts, school officials, key community stakeholders, parents, and students can work together to create strategies focused on improving nutrition and physical activity policies and practices which could enhance the physical, mental, and social qualities of life for school-aged children as well as slow and eventually put an end to the childhood obesity epidemic.

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APPENDICES

Appendix A
NASPE Resource Brief for Quality Physical Education (n.d.)

A quality physical education program provides learning opportunities, appropriate instruction, meaningful and challenging content, and student and program assessment. In addition, a quality physical education improves mental alertness, academic performance, and readiness and enthusiasm for learning in our nation's youth.

The Four Components of a High-Quality Physical Education Program

- **Opportunity to Learn**
  - All students are required to take physical education
  - Instructional periods total 150 minutes per week (elementary) and 225 minutes per week (middle and secondary school)
  - Physical education class size consistent with that of other subject areas
  - Qualified physical education specialist provides a developmentally appropriate program
  - Adequate and safe equipment and facilities

- **Meaningful Content**
  - Written, sequential curriculum for grades P-12, based on state and/or national standards for physical education
  - Instruction in a variety of motor skills designed to enhance the physical, mental, and social/emotional development of every child
  - Fitness education and assessment to help children understand, improve and/or maintain physical well-being
  - Development of cognitive concepts about motor skill and fitness
  - Opportunities to improve emerging social and cooperative skills and gain a multi-cultural perspective
  - Promotion of regular amounts of appropriate physical activity now and throughout life

- **Appropriate Instruction**
  - Full inclusion of all students
  - Maximum practice opportunities for class activities
  - Well-designed lessons that facilitate student learning
  - Out of school assignments that support learning and practice
  - Physical activity not assigned as or withheld as punishment
  - Regular assessment to monitor and reinforce student learning

- **Student and Program Assessment**
    - Assessment is an ongoing, vital part of the physical education program
    - Formative and summative assessment of student progress
    - Student assessments aligned with state/national physical education standards and the written physical education curriculum
    - Assessment of program elements that support quality physical education
    - Stakeholders periodically evaluate the total physical education program effectiveness

Why is Quality Physical Education Important?

Quality physical education programs help all students develop:

- health-related fitness
- physical competence
- cognitive understanding
- positive attitudes about physical activity so that they can adopt healthy and physically active lifestyles

Appendix B
Recommended Standards for Competitive Foods in Schools
from the Institute of Medicine (2007)

Recommended Standards
Standards for Nutritive Food Components

Standard 1: Snacks, foods, and beverages meet the following criteria for dietary fat per portion as packaged:
• No more than 35 percent of total calories from fat;
• Less than 10 percent of total calories from saturated fats; and
• Zero trans fat.

Standard 2: Snacks, foods, and beverages provide no more than 35 percent of calories from total sugars per portion as packaged.
Exceptions include:

- 100-percent fruits and fruit juices in all forms without added sugars;
- 100-percent vegetables and vegetable juices without added sugars; and
- Unflavored nonfat and low-fat milk and yogurt; flavored nonfat and low-fat milk with no more than 22 grams of total sugars per 8-ounce serving; and flavored nonfat and low-fat yogurt with no more than 30 grams of total sugars per 8-ounce serving.

Standard 3: Snack items are 200 calories or less per portion as packaged and á la carte entrée items do not exceed calorie limits on comparable NSLP items.

Standard 4: Snack items meet a sodium content limit of 200 mg or less per portion as packaged or 480 mg or less per entrée portion as served for á la carte.

Standards for Nonnutritive Food Components

Standard 5: Beverages containing nonnutritive sweeteners are only allowed in high schools after the end of the school day.

Standard 6: Foods and beverages are caffeine free, with the exception of trace amounts of naturally occurring caffeine-related substances.

Standards for the School Day

Standard 7: Foods and beverages offered during the school day are limited to those in Tier 1.

Standard 8**:** Plain, potable water is available throughout the school day at no cost to students.

Standard 9: Sports drinks are not available in the school setting except when provided by the school for student athletes participating in sport programs involving vigorous activity of more than 1 hour's duration.

Standard 10: Foods and beverages are not used as rewards or discipline for academic performance or behavior.

Standard 11: Minimize marketing of Tier 2 foods and beverages in the high school setting by:

- Locating Tier 2 food and beverage distribution in low student traffic areas; and
- Ensuring that the exterior of vending machines does not depict commercial or social benefit.

Standards for the After-School Setting

Standard 12: Tier 1 snack items are allowed after school for student activities for elementary and middle schools. Tier 1 and 2 snacks are allowed after school for high school.

Standard 13: For on-campus fundraising activities during the school day, Tier 1 foods and beverages are allowed for elementary, middle, and high schools. Tier 2 foods and beverages are allowed for high schools after school. For evening and community activities that include adults, Tier 1 and 2 foods and beverages are encouraged.

Appendix C
Tier 1 and Tier 2 Standards from the Institute of Medicine (2007)

TABLE 1. Foods and Beverages That Meet Tier 1 and Tier 2 Standards

Foods	Beverages
Tier 1 for All Students	
Tier 1 foods are fruits, vegetables, whole grains, and related combination products* and nonfat and low-fat dairy that are limited to 200 calories or less per portion as packaged and: • No more than 35 percent of total calories from fat • Less than 10 percent of total calories from saturated fats • Zero Trans Fat (≤ 0.5 g per serving) • 35 percent or less of calories from total sugars, except for yogurt with no more than 30 g of total sugars, per 8-oz. portion as packaged • Sodium content of 200 mg or less per portion as packaged Á la carte entrée items meet fat and sugar limits as listed above and:** ◊ Are National School Lunch Program (NSLP) menu items ◊ Have a sodium content of 480 mg or less	Tier 1 beverages are: • Water without flavoring, additives, or carbonation. • Low-fat* and nonfat milk (in 8 oz portions): ◊ Lactose-free and soy beverages are included ◊ Flavored milk with no more than 22 g of total sugars per 8-oz. portion • 100-percent fruit juice in 4-oz. portion as packaged for elementary/middle school and 8 oz. (two portions) for high school. • Caffeine-free, with the exception of trace amounts of naturally occurring caffeine substances.
*Combination products must contain a total of one or more servings as packaged of fruit, vegetables, or whole grain products per portion. **200-calorie limit does not apply; items cannot exceed calorie content of comparable NSLP entrée items.	*1-percent milk fat
Tier 2 for High School Students After School	
Tier 2 snack foods are those that do not exceed 200 calories per portion as packaged and: • No more than 35 percent of total calories from fat • Less than 10 percent of total calories from saturated fats • Zero Trans fat (≤ 0.5 g per portion) • 35 percent or less of calories from total sugars • Sodium content of 200 mg or less per portion as packaged.	Tier 2 beverages are: • Non-caffeinated, non-fortified beverages with less than 5 calories per portion as packaged (with or without nonnutritive sweeteners, carbonation, or flavoring).

Appendix D
The Wellness School Assessment Tool ([WellSAT], n.d.)

SCHOOL WELLNESS POLICY EVALUATION TOOL

Developed by the Robert Wood Johnson Foundation
Healthy Eating Research Program, Working Group 1

Chair: Marlene B. Schwartz, Ph.D. (Connecticut)

Members: Anne Lund, M.P.H., R.D. and Mollie Greves, M.D., M.P.H. (Washington); Elaine McDonnell, M.S., R.D. and Claudia Probart, Ph.D., R.D. (Pennsylvania); Anne Samuelson, M.P.H. and Leslie Lytle, Ph.D., R.D. (Minnesota)

The School Wellness Policy Evaluation Tool provides a standard method for the quantitative assessment of school wellness policies. Such policies have been required since 2006 in all school districts participating in the National School Lunch Program. This tool offers a consistent and reliable means of assessing the comprehensiveness and strength of school wellness policies within or among states. It was developed by researchers funded by the

How to use the School Wellness Policy Evaluation Tool

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How to Score School Wellness Policies……4

Rating Guidance

Section 1: Nutrition Education and Wellness Promotion…….……5
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School Wellness Policy Score Sheet……..…….52

How to Rate Policy Statements

School wellness policies are evaluated based on the degree to which they address 50 policy items, which are categorized into five sections. The sections include Nutrition Education and Wellness Promotion, Standards for USDA Child Nutrition Programs and School Meals, Nutrition Standards for Competitive and Other Foods and Beverages, Physical Education and Physical Activity, and Evaluation.

For each of the 50 policy items, school wellness policy statements are to be rated "0," "1," or "2," using the definitions below. This evaluation tool lists each policy item followed by an explanation of the item and examples of "1", "2", "3", and "4" statements. Ratings of "3" and "4" apply only to specific questions in Section 3: "Nutrition Standards for Competitive and Other Foods and Beverages"

Rating		Explanation
0	**= Not Mentioned**	The item is not included in the text of the policy.
1	**= Weak Statement**	Assign a rating of "1" when the item is mentioned, *but:* • The policy will be hard to enforce because the statement is *vague*, *unclear*, or *confusing.* • Statements are listed as *goals*, *aspirations*, *suggestions,* or *recommendations.* • There are *loopholes* in the policy that weaken enforcement of the item. • The policy mentions a *future plan to act* without specifying when the plan will be established. Words often used include*: may, can, could, should, might, encourage, suggest, urge, some, partial, make an effort,* and *try*.
2	**= Meets / Exceeds Expectations**	Assign a rating of "2" when the item is mentioned, and it is clear that the policy makers are committed to making the item happen because: • The item is described using specific language (e.g., a concept followed by concrete plans or strategies for implementation). • Strong language is used to indicate that action or regulation is required, including: *shall, will, must, have to, insist, require, all, total, comply* and *enforce.* • A district is unable to enforce an item (e.g., teachers role modeling healthy behaviors), but the goal is clearly stated (e.g., "shall encourage teachers to role model healthy behaviors").
3	**= Meets IOM standard**	Assign a rating of "3" when nutrients in foods and or beverages meet IOM standards.
4	**= School instituted ban**	Assign a rating of "4" when the item ban is mentioned.

Evaluating Hint: One method for deciding between a rating of "1" and a "2" is to consider the scenario of a parent approaching a school district's board of education to discuss an issue. If the policy is ambiguous on how the school should handle the issue at hand, rate the item as "1." If the written policy gives clear guidance about how to decide whether the school complies with the policy, rate the item as "2."

State law may regulate items in this evaluation tool. State law supersedes the authority of school wellness policies, so unless otherwise indicated, rate items according to the strength of state law when state law exceeds standards in a policy or when state law mentions items not included in a policy. For example, if state law prohibits soda in schools but the policy does not; rate applicable items as if the policy explicitly prohibits soda.

How to Score School Wellness Policies

The WellSAT will give you two scores: a **comprehensiveness** score, which reflects the extent to which recommended content areas are covered in the policy; and a **strength** score, which describes how strongly the content is stated. Both scores range from 0-100, with lower scores indicating less content and weaker language, and higher scores indicating more content and use of specific and directive language.

Score	Explanation
Comprehensiveness Score by section	Comprehensiveness is calculated by counting the number of items in each section rated as "1" or "2," dividing this number by the number of policy items in the section, and multiplying this number by 100.
Strength Score by section	Strength is calculated by counting the number of items in each section rated as "2," dividing this number by the number of policy items in the section, and multiplying this number by 100.
Total Comprehensiveness	Total comprehensiveness is calculated by counting the number of items rated as "1" or "2," dividing this number by the total number of policy items (50) in all five sections, and multiplying this number by 100.
Total Strength	Total strength is calculated by counting the number of items rated as "2," dividing this number by the total number of policy items (50) in all five sections, and multiplying this number by 100.

The example below shows the calculation of sample scores for Section 1.

	Section 1. Nutrition Education	Rating
NEW P1	Nutrition curriculum provided for each grade level.	0
NEW P2	Links nutrition education with the school food environment.	1
NEW P3	Nutrition education teaches skills that are behavior-focused.	2
NEW P4	Encourages staff to be role models for healthy behaviors.	1
NEW P5	Specifies district using Centers for Disease Control and Prevention's (CDC) Coordinated School Health Program (CSHP) model or other coordinated/comprehensive method.	0

NEW P6	Specifies how district will engage parents, students or community to provide information and hear feedback to meet district wellness goals.		0
NEW P7	Specifies marketing to promote healthy choices.		1
NEW P8	Specifies restricting marketing of unhealthful choices..		0
NEW P9	Establishes a health advisory committee or school health council that is ongoing beyond policy development.		2
	Subtotal for Section 1 *Nutrition Education*	Comprehensiveness Score *Count the number of items rated as "1" or "2" and divide this number by 9. Multiply by 100. Do not count an item if the rating is "0."*	56
		Strength Score *Count the number of items rated as "2" and divide this number by 9. Multiply by 100.*	22

Comprehensiveness Score = Three items are rated as "1" and two items are rated as "2," for a total of 5 items. Five divided by 9 equals 0.56, multiplied by 100 for a score of 56.
Strength Score= Two items are rated as "2." Two divided by 9 equals 0.22, multiplied by 100 for a score of 22.

In Section 3, item responses may vary if regulations are specific to elementary, middle and high schools. You can assign a score for each grade level. The final score for the item will be the average of the three responses given. Averages should be rounded up. Also in Section 3, several items are scored on a scale of 0-4. Items receiving a rating of "3" or "4" will be considered a rating of "2" for scoring purposes.

Section 1. Nutrition Education and Wellness Promotion

#	Item	Rating Guidance	
NEWP1	Provides nutrition curriculum for each grade level.	0	**For this item, integrating nutrition education into other subjects beyond health education does NOT qualify for a "1" or "2."** **Not mentioned** • Mentions "standards-based nutrition education" without mentioning curriculum/program. • Addresses a "wellness curriculum" or health education curriculum without including nutrition/healthy eating as part of the curriculum components.
		1	**Weak statement** **Describes general health curriculum for "K-12" or "all levels," and/or is unclear if each grade will receive nutrition education.** **Example:** • "Enable students, through a comprehensive curriculum, to acquire the knowledge and skills necessary to make healthy food choices for a lifetime." (Not clear that nutrition education is actually taught at each grade level.) • "Nutrition and physical activities lessons will be designed for integration into the curriculum and the health education program."
		2	**Meets or Exceeds Expectations** Clear that district has a nutrition education curriculum in each grade. **Example:** • "Nutrition topics shall be

			integrated within the comprehensive health education curriculum and taught at every grade level (K-12)."
NEWP2	Links nutrition education with the school food environment	0	**Not mentioned**
		1	**Vague and/or suggested** **Example:** • "The entire school environment, not just the classroom, shall be aligned with healthy school goals to positively influence a student's understanding, beliefs, and habits as they relate to good nutrition and regular physical activity."
		2	**Requires that nutrition education be integrated into the larger school environment in concrete ways.** **Example:** • "The nutrition education program shall work with the school meal program to develop school gardens and use the cafeteria as a learning lab."
NEWP3	Nutrition education teaches skills that are behavior-focused.	0	**Not mentioned, or only addresses knowledge acquisition**
		1	**Any of the following:** • Skill-based nutrition education is suggested. • Specific behavioral skills are mentioned, but none are required. • Skill-based health education is suggested outside of the nutrition education section of the policy. **Examples:** • "All students should have the skills necessary to make nutritious food

			choices." • "Students will receive nutrition education that fosters the adoption and maintenance of healthy eating behaviors."
		2	**Either of the following:** • Skill-based nutrition education is required. • Specific skills or activities are identified and required (e.g., media awareness, menu planning, reading nutrition facts labels). **Examples:**"Nutrition education will incorporate lessons helping children acquire skills for reading food labels and menu planning." • "Schools will provide nutrition education lessons that cover topics such as reading a Nutrition facts label."

Section 1. Nutrition Education and Wellness Promotion *(continued)*			
#	**Item**	**Rating Guidance**	
NEWP4	Encourages staff to be role models for healthy behaviors.	0	**Not mentioned**
		1	**Suggests that staff should be encouraged to model healthy behavior** **Example:** • "Each school in the district should encourage staff to model..."
		2	**Requires that staff shall be encouraged to model healthy behavior** **Example:** • "Staff will be encouraged to model healthy eating and physical activity as a valuable part of daily life."
NEWP5	Specifies district using the Centers for Disease Control and Prevention's (CDC) Coordinated School Health Program model or	0	**Not mentioned**
		1	**Mentions that district is considering or working toward**

		other coordinated/comprehensive method			**use of a coordinated school health model** **Example** • "We will strive toward integrating nutrition into a coordinated school health approach."
				2	**Includes language to institutionalize a coordinated school health model** **Example:** • "Schools will link nutrition education activities with the coordinated school health program."

NEWP6		Specifies how district will engage families to provide information and/or solicit input to meet district wellness goals (e.g., through website, e-mail, parent conferences, or events).		0	**Not mentioned**
				1	**Any of the following:** • Methods are vague. • Specific methods are mentioned, but not required. • Specific methods are mentioned, but it is unclear if the school will engage families. **Examples:** • "Nutrition information and links to relevant resources in the community should be provided to families through newsletters, publications, health fairs, and other channels." • "Feedback from parents should be encouraged through stakeholder meetings."
				2	**Meets or Exceeds Expectations** • Clear that the district or schools will engage families, and specific methods are listed. Even if it is unclear that each method listed will be used, as long as engagement is required, rate as "2." **Examples:** • "Nutrition education will be provided to parents in the form of handouts, the school website, articles and information provided in district or school newsletters, presentations that focus on nutrition and healthy lifestyles, and through any other appropriate means available to reach parents." • "The school will consider student needs in planning for a healthy school nutrition environment. Students will be asked for input and feedback through the use of student surveys and attention will be given to their comments." • "The food service director will be available to speak with parents during open house." • "Parents will be provided the opportunity to give feedback on

			wellness goals."

NEWP7	Specifies marketing to promote healthy choices.	0	**Not mentioned**
		1	**Vague and/or suggested** **Example:** • "It is recommended that organizations operating concessions at school functions market healthy food choices at a lower profit margin to encourage student selection."
		2	**Specific (posters, pricing structures, etc.) and required** **Example:** • "Schools shall label/mark healthy food items available so students know which are healthy items." • "The healthiest choices, such as salads and fruit, will be prominently displayed in the cafeterias to encourage students to make healthy choices." • "Healthy food options will be comparably priced."

NEWP8		Specifies restricting marketing of unhealthful choices		0	**Not mentioned**
				1	**Weak Statement** Restrictions are suggested or weakened by exceptions such as time, location, or a principal's discretion. **Example:** • "Display and advertising of foods with minimal nutritional value is strongly discouraged on school grounds."
				2	**Required** **Examples:** • "Education materials shall be free of brands and illustrations of unhealthful foods." • "Soft drink logos are not allowed on school materials or on school property."

NEWP9	Establishes an advisory committee to address health and wellness that is ongoing beyond policy development.	0	**Not mentioned**
		1	**Suggested and/or not clear that the committee will be ongoing** **Example:** • "A wellness policy committee will be formed in district XYZ."
		2	**Committee is required and clearly ongoing** **Examples:** • "The Nutrition and Physical Activity Advisory Council shall include (stakeholders) and shall meet a minimum of two times annually to monitor and evaluate the implementation of the policy." • "The school district will create, strengthen, or work within existing school health councils to develop, monitor, review, and revise nutrition and physical activity policies. The councils will serve as resources to school sites for implementing these policies."

Section 2. Standards for USDA Child Nutrition Programs and School Meals

#	Item		Rating Guidance
US1	Addresses access to and/or promotion of the School Breakfast Program (USDA).	0	**Not mentioned** • Informing parents about the School Breakfast Program does NOT qualify for a "1" or "2."
		1	**Either of the following:** • Promotes a breakfast program without specifying the "School Breakfast Program" (USDA) or CFR Part 220. • Encourages or suggests participation in the School Breakfast Program.

			Examples: • "The district shall make every effort to offer school breakfast." • "The district shall operate under USDA regulations for school food programs (e.g., School Breakfast Program, National School Lunch Program, Special Milk Program, and Summer Food Service Program)."
		2	**Meets or Exceeds Expectations** • Includes language to institutionalize the School Breakfast Program (e.g., specific reference to School Breakfast Program or CFR Part 220). **Example:** • "All schools will provide breakfast through the USDA School Breakfast Program."
US2	Addresses nutrition standards for school meals beyond USDA (National School Lunch Program / School Breakfast Program) minimum standards. Note: USDA "school meals" include beverages served with the meal.	0	**Note: U.S. Department of Health and Human Services (HHS) and U.S. Department of Agriculture (USDA) Dietary Guidelines for Americans exceed the minimum standards for the USDA school meals programs.** **Any of the following:** • Not mentioned. • Unless defined, ambiguous references to federal or USDA standards/guidelines/requirements (e.g., "federal nutrition standards," "USDA standards," or "USDA guidelines") do NOT qualify for "1" or "2" because it is not clear that these standards refer to anything other than the minimum legal requirements for USDA school meals programs. • "Striving to meet" or "should meet" the Dietary Guidelines does not qualify for a 1 or 2. • Exploring increased use of whole grains or exploring including salads, yogurts and other healthy foods to the meal menu.

			1	**Either of the following:** • Vague and/or suggested. • Specifies meeting the Dietary Guidelines for Americans and no other standards. To receive a "1" for specifying the Dietary Guidelines for Americans, a policy must at least state, "Dietary Guidelines." **Examples:** • "Encourage the consumption and choice of nutrient-dense food, such as whole grains, fruits, and vegetables." • "Should assist students to comply with the Dietary Guidelines for Americans." • "...all meals will follow the food guide system developed by USDA" • "...all foods sold/served on campus will meet USDA Dietary Guidelines" (and no other mention about school meal programs in the policy that would alter the coding for this item) • "School meals promote fresh fruits, vegetables, whole grains, and low-fat items"
			2	**Meets or Exceeds Expectations** • School meals are required to meet specific standards (e.g., 4 fruits and/or non-fried vegetables per day; only 1% and fat-free white milk served; at least half of grains are whole grain; eliminates trans fats, using low fat versions of foods or low-fat cooking methods). **Example:** • "Milk sold as part of the school meals program will be limited to 1%, and skim, with no chocolate milk being served."

Section 2. Standards for USDA Child Nutrition Programs and School Meals *(continued)*

#	Item	Rating Guidance	
US3	Specifies strategies to increase participation in school meal programs. ("School meal programs" can be assumed to refer to breakfast and/or lunch.)	0	**Not mentioned** • Notifying parents of eligibility requirements for free and reduced price meals is a federal requirement and does NOT qualify for "1" or "2.
		1	**Mentions vague and/or suggested strategies** **Example:** • "School meals shall be made attractive to students by appealing to their taste preferences." • "Meals shall be appealing..." • "...bus schedules should be arranged to facilitate participation in the school breakfast program." • "The district has a closed campus policy unless the Principal provides permission for students to leave during the lunch period." • "To the extent possible, school and transportation schedules shall be designed to encourage participation in school meal programs."
		2	• Requires specific strategies such as promotional mailings or events, alternative breakfast systems, altered bus schedules, closed campus, student input on the menu, or "Grab and Go" or "Fun on the Run" promotions. **Examples:** • "Students will have the opportunity to provide input on local, cultural, and ethnic favorites." • "Shall provide periodic food promotions to encourage taste testing of healthy new foods being introduced on the menu." • "Morning bus routes will be scheduled to

			allow students to arrive at school in time to eat breakfast." • "Students are prohibited from leaving campus for lunch."

Section 2. Standards for USDA Child Nutrition Programs and School Meals *(continued)*

#	Item	Rating Guidance	
US4	Ensures adequate time to eat.	0	**Not mentioned**
		1	**Vague and/or suggests a specific amount of time** **Examples:** • "Schools are encouraged to permit all full-day students a daily lunch period of not less than 20 minutes." • "Personnel will schedule enough time so students do not have to spend too much time waiting in line."
		2	**Meets or Exceeds Expectations** • Requires meal periods to include at least 20 minutes for lunch and, if time for breakfast is mentioned, at least 10 minutes for breakfast. **Examples:** • "After obtaining food, students will have at least 20 minutes to eat lunch." • "Students will be provided adequate time (minimum of 20 minutes) to eat lunch." • "The school district will provide students with a minimum of 20 minutes to eat their meals."
US5	Ensures nutrition training for food service director and/or onsite manager (or other person responsible for menu planning).	0	**Not mentioned or only mention food safety training**
		1	**Any of the following:** • Vague and/or suggested. • Professional development offered, but unclear if nutrition is covered. • Training encouraged for food service

			director only (works off-site) **Example:** • "All food service personnel will have adequate training in food service operations." "Professional development training will be offered for all interested faculty and staff."
		2	**2 - Nutrition training is specified for onsite manager and/or the food service director.** **Example:** • "Shall ensure that professional development in the area of food and nutrition is provided for food service managers and staff."

Section 2. Standards for USDA Child Nutrition Programs and School Meals *(continued)*

#	Item		Rating Guidance
US6	Addresses school meal environment.	0	**Not mentioned**
		1	**Vague and/or suggested.** **Example:** • "...will strive to make the cafeteria a pleasant environment for meals."
		2	**Meets or Exceeds Expectations** Requires specific strategies (ensures adequate space/seating, supervision, a clean, pleasant environment, etc.) **Examples:** • "Appropriate supervision shall be provided in the cafeteria and rules for safe behavior shall be consistently enforced." • "Students shall be provided a pleasant environment in which to eat lunch."
US7	Nutrition information for school	0	**Not mentioned**

	meals (e.g., calories, saturated fat, sugar) is available.	1	**Either of the following:** • Vague and/or suggested. • Only available upon request. **Example:** • "Will provide nutrition information to parents upon request."
		2	**Specific and required** **Example:** • "Will share and publicize information about the nutritional content of meals with students and parents."

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages

Note: This section relates to sale or service of foods outside USDA school meals. Do not count provisions in the USDA school meals section of the policy for items in this section. If a school wellness policy contains a statement regulating "all foods" at school, and it is unclear from the context of the policy whether the statement applies to competitive foods or USDA school meals, apply the statement to this section (Nutrition Standards for Competitive and Other Foods and Beverages) and to section 2 (Standards for USDA Child Nutrition Programs and School Meals).

- Some policies regulate foods "served" at school, while others only regulate foods "sold" at school. The distinction between "served" and "sold" is that "served" includes both foods that are "sold" and foods that are distributed without cost, such as foods served at birthday parties. Most items in this section refer to foods sold, but some refer to the broader category of foods served.
- For a policy to receive a minimum default rating for mentioning U.S. Department of Health and Human Services (HHS) and U.S. Department of Agriculture (USDA) Dietary Guidelines for Americans, the policy must state "Dietary Guidelines."
- A regulation with a time exception is one that only applies during certain hours (e.g., when class is in session or during lunch).
- A regulation with a location exception is one that only applies to certain places or grade levels (e.g., in cafeteria or middle school).

Note: Item responses may vary if regulations are specific to elementary, middle and high schools. You can assign a score for each grade level. The final score for the item will be the average of the three responses given, rounded up.

#	Item		
NS1	Regulates vending machines	N/A	**Our school district does not have this grade level**
		0	**Either of the following:** • No mention of vending machine regulations or no umbrella statement regulating "all foods", "competitive foods"

			or "foods served outside USDA meals". • Only mention efforts to minimize sale of Foods of Minimal Nutritional Value.
		1	**Any of the following:** • Vending machine regulations or umbrella statement regulating "all (competitive) foods" is vague, suggested, time- or location- specific, subject to principal's discretion, or weakened by other exceptions. • The 2005 Dietary Guidelines for Americans and no other standards are mentioned to regulate vending machines or "all (competitive) foods." • Regulations only apply to a very limited group of foods (e.g., prohibiting Foods of Minimal Nutritional Value in vending machines). • Mentions only state guidelines regulating vending machine sales (and does not clarify what the state guideline is). • Restrictions only apply to a percentage of food and/or beverage items or a limited set of items (e.g., fat content and soda). • Mentions regulating food and beverages in vending machines without specifying guidelines or mentions plans to create guidelines. **Examples:** • "Vending machines shall include items which are healthful." • "Vending machines shall be unplugged during lunch hour." • "Vending machine sales are in accordance with the state Public School Nutrition Policy." • "Food and beverage sales in vending machines will support healthy eating." • "All food and beverages sold will strive to support the district's healthy eating guidelines." • "The sale of food items during the school day shall be restricted to those items in categories of food that meet minimal nutritional value."

				• "The district shall consider sugar content, fat content, portion size, and lack of nutrients in all food and beverages sold or served to students." • "A minimum of 75% of food and beverages sold in vending machines must meet district nutrition standards." • "A minimum of 20% of snacks in vending machines, school stores, concession, and a la carte will be considered healthy snack offerings." • "Nutrition guidelines that require the use of products that are high in fiber, low in added fats, sugar, sodium, and served in appropriate portion sizes consistent with USDA standards shall be established for all foods offered by the district's nutrition services department or contracted vendors." • "The district shall monitor all food and beverages sold or served to students."
			2	**Any of the following:** • Regulate nutritional quality of ALL items sold (e.g., regulating maximum calorie, sugar, and saturated fat content of ALL items sold); • Provide a specific and restricted list of food items allowed to be sold in vending machines or at all times (e.g., limiting vending to only water, fruits, vegetables, whole grains, and nuts); • Prohibit a comprehensive list of unhealthy foods (e.g., baked goods, sweetened beverages, and candy) in vending machines or at all times. **Examples:** • Foods sold through vending machines shall be limited to water, 100% juice, and fresh fruits and/or vegetables. • All items sold through vending machines shall contain no more 35% of total calories from fat and sugars and no trans fats.
			3	

			Bans vending machines or bans all competitive foods **Examples:** • The sale of food and beverages is limited to those sold through the school meal program. • Vending machines are prohibited on school grounds.

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*

#	Item	Rating Guidance	
NS2	. Regulates school stores. Note: If policy only mentions concessions or snack bars, do not code for school stores, unless policy defines concessions and/or snack bars as including school stores.	N/A	**Note: If policy regulates "all foods" or "competitive foods," rate according to the strength of that statement.** **Our school district does not have this grade level**
		0	**Either of the following:** • No mention of school store regulations or no umbrella statement regulating "all foods", "competitive foods" or "foods served outside USDA meals". • Efforts to minimize sale of Foods of Minimal Nutritional Value
		1	**Any of the following:** • School store regulations or umbrella statement regulating "all (competitive) foods" is vague, suggested, time- or location- specific, subject to principal's discretion, or weakened by other exceptions. • The 2005 Dietary Guidelines for Americans and no other standards are mentioned to regulate school stores or "all (competitive) foods." • Regulations only apply to a very limited group of foods (e.g., prohibiting Foods of Minimal Nutritional Value in school stores). • Restrictions only apply to a percentage of food and/or beverage items or a limited set of items (e.g., fat content and

					soda). • Language such as: "The district shall monitor all food and beverages sold or served to students, including those available outside of the federally regulated child nutrition programs (i.e., a la carte, vending, student stores, rewards, fundraising, etc.). • Any language such as "...should strive to sell healthy food and beverages in school stores." **Examples:** • "...ensure some healthy options are sold at school stores." • "Sales of food and beverages in school stores must comply with state Public School Nutrition Policy." • "..school stores shall strive to include healthy choices for sale..." • "All food and beverages sold will strive to support the district's healthy eating guidelines." • "The sale of food items during the school day shall be restricted to those items in categories of food that meet minimal nutritional value." • "The district shall consider sugar content, fat content, portion size, and lack of nutrients in all food and beverages sold or served to students." • "...50% of food and beverages sold in stores must meet the district nutrition standards." • "Nutrition guidelines that require the use of products that are high in fiber, low in added fats, sugar, sodium, and served in appropriate portion sizes consistent with USDA standards shall be established for all foods offered by the district's nutrition services department or contracted vendors."
				2	**Any of the following:** • Regulate nutritional quality of each individual item sold (e.g., regulating maximum calorie, sugar, and saturated fat content of ALL items sold). • Provide a specific and restricted list of

					food items allowed to be sold in school stores or at all times (e.g., limiting food sales to only water, fruits, vegetables, whole grains, and nuts). • Provide a comprehensive list of prohibited unhealthy foods (e.g., baked goods, sweetened beverages, and candy) in school stores or at all times. **Examples:** • Foods sold through school stores shall be limited to water, 100% juice, and fresh fruits and/or vegetables. • All items sold through school stores shall contain no more 35% of total calories from fat and sugars and no trans fats.
				3	**Bans food/beverage sales in school stores or there is a competitive food ban** **Examples:** • The sale of food and beverages is limited to those sold through the school meal program. • District XYZ does not allow food/beverages to be sold at school stores.

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*

#	Item	Rating Guidance
NS3	Regulates food service a la carte OR food sold as an alternative to the reimbursable school meal program (if not defined as to what this means).	N/A	Note: If policy regulates "all foods" or "competitive foods," rate according to the strength of that statement. If the policy addresses food and/or beverage sold by food service program /child nutrition programs, etc., but the policy is silent on a la carte, give credit for a la carte. **Our school district does not have this grade level**

				0	**Either of the following:** • No mention of a la carte regulations or no umbrella statement regulating "all foods", "competitive foods" or "foods served outside USDA meals". • Efforts to minimize sale of Foods of Minimal Nutrition Value
				1	**Any of the following:** • A la carte regulations or umbrella statement regulating "all (competitive) foods" is vague, suggested, or weakened by exceptions such as a time, location, or a principal's discretion. • The 2005 Dietary Guidelines for Americans and no other standards are mentioned to regulate food service a la carte or "all (competitive) foods." • Restrictions only apply to a percentage of food and/or beverage items or a limited set of items (e.g., fat content and soda, for example). • Language such as: "The district shall monitor all food and beverages sold or served to students, including those available outside of the federally-regulated child nutrition programs (i.e., a la carte, vending, student stores, etc.)." • Language such as: "...should strive to sell healthy a la carte food and beverages. • Mentions regulating a la carte/all food and beverages without specifying guidelines or mentions plans to create guidelines. **Examples:** • "All food and beverages sold will strive to support the district's healthy eating guidelines." • "Food service shall strive to include some healthy choices for all a la carte food sales" (and lists them). • "The sale of food items during the school day shall be restricted to those items in categories of food that meet minimal nutritional value." • "The district shall consider sugar content, fat content, portion size, and lack of nutrients in all food and beverages sold or served to students." • "...50% of a la carte food and beverage items must meet district nutrition standards." • "Nutrition guidelines that require the use of products that are high in fiber, low in added fats,

					sugar, sodium, and served in appropriate portion sizes consistent with USDA standards shall be established for all foods offered by the district's nutrition services department or contracted vendors."
				2	**Any of the following:** • Regulate nutritional quality of ALL a la carte items sold (e.g., regulating maximum calorie, sugar, or saturated fat content of ALL items sold). • Provide a specific and restricted list of food items allowed to be sold a la carte or at all times (e.g., limiting food sales to only fruits, vegetables, and whole grains). • Provide a comprehensive list of prohibited unhealthy foods (e.g., baked goods, sweetened beverages, and candy) a la carte or at all times. **Examples:** • A la carte food and beverage sales shall be limited to water, 100% juice, and fresh fruits or vegetables. All items sold through school stores shall contain no more 35% of total calories from fat and sugars and no trans fats.
				3	**Bans a la carte food sales or there is a competitive food ban** **Examples:** • The sale of food and beverage is limited to those sold through the school meal program. • District XYZ does not allow a la carte food/beverage sales.

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*			
#	**Item**	**Rating Guidance**	
NS4	Regulates food served at class parties and other school celebrations.	N/A	**Our school district does not have this grade level**
		0	**Not mentioned**
		1	**Any of the following:** • Regulation for class parties or umbrella statement regulating "all (competitive) foods" served at school is vague, suggested, or weakened by exceptions such as time, location, or a principal's discretion. • The 2005 Dietary Guidelines for Americans and no other standards are mentioned to regulate class parties or "all (competitive) foods served." • Regulations only apply to a very limited group of foods (e.g., prohibiting Foods of Minimal Nutritional Value at all times). • Regulations for class parties are required but weakened (e.g., by allowing one traditional party food). **Examples:** • "District encourages healthy snacks at parties." • "Celebrations involving food during the school day shall be at the discretion of the school principal." • "The school food environment (including celebrations) on balance and over time should be consistent with healthy food guidelines." • "...permits only one birthday party per month." • "The district shall provide parents with a list of foods that meet the Board's snack standards for healthy celebrations/parties, rewards, and fundraising activities" (and no other mention of celebrations/parties included in the policy) • "The district should regulate all food and beverages sold/served as part of

					classroom activities." • "Classroom parties will offer minimal amounts of foods (maximum 2-3 items) that contain added sugar as the first ingredient and will provide the following: fresh fruits and vegetables, water, 100% fruit juice or milk" • "Classroom parties, celebrations, etc. shall be limited to one snack and one beverage (100% juice, water, or milk)." • "The district shall consider sugar content, fat content, portion size, and lack of nutrients in all food and beverages sold or served to students." • "Nutrition guidelines that require the use of products that are high in fiber, low in added fats, sugar, sodium, and served in appropriate portion sizes consistent with USDA standards shall be established for all foods offered by the district's nutrition services department or contracted vendors."
				2	**Any of the following:** • Regulate nutritional quality of each individual item served/distributed/available at class parties (e.g., regulating maximum calorie, sugar, or saturated fat content of ALL items). • Provide a specific and restricted list of food items allowed to be served/distributed/available at class parties or at all times (e.g., limiting to fruits and whole grains). • Prohibit a comprehensive list of unhealthy foods (e.g., baked goods, sweetened beverages, and candy) from being served/distributed/available at class parties/celebrations or at all times. **Example:** • "Foods and beverages served at school celebrations must meet the District's Nutritional Standards," (and standards are defined).
				3	**No Food Allowed at Class Celebrations or there is a**

			competitive food ban **Example:** • "Classroom celebrations will focus on activities, rather than food. No food will be served."

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*			
#	**Item**	**Rating Guidance**	
NS5	Addresses limiting sugar content of foods sold/served outside of USDA meals.	N/A	**our school district does not have this grade level**
		0	**Not mentioned** • If policy specifies Dietary Guidelines for Americans and no other standards, rate as "0." A policy that just regulates or limits candy does NOT qualify for a rating of "1" or "2.
		1	**Any of the following:** • Limit is not quantified. • Limit is suggested, time- or location-specific, subject to principal's discretion, or weakened by other exceptions. • Restrictions on sugar only apply to a percentage of food item. **Examples:** • "Dry snacks sold at the K-8 level shall follow District Nutrition Standards minimizing the content of sugar." • "Prohibits foods listing sugar, corn syrup, or other caloric sweeteners as the first ingredient." • "Schools shall discourage consumption of sugary foods." • "The district will encourage students to make nutritious food choices and will ensure that...schools regulate the sale of foods high in...added sugars." • "The district shall consider sugar content,

					fat content, portion size, and lack of nutrients in all F&B sold or served to students." • "...50% of food items sold must prohibit sugar as the first ingredient" • "Nutrition guidelines that require the use of products that are high in fiber, low in added fats, sugar, sodium, and served in appropriate portion sizes consistent with USDA standards shall be established for all foods offered by the district's nutrition services department or contracted vendors.:"
				2	**Quantified and required limit of >35% of total calories/total weight from sugar** **Example:** • "Food sold outside the school meal program must contain no more than 40% of total calories/total weight from sugar."
				3	**Meets Institute of Medicine standard: ≤ 35% of total calories/weight from sugar** **Example:** • "K-12 school food service, school store, and school vending machines sale of individual snack items per package shall include no more than 35% total calories/weight from sugar."
				4	**Competitive food ban**

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*

#	Item	Rating Guidance	
NS6	Addresses limiting fat content of foods sold/served outside of USDA meals.	N/A	**Our school district does not have this grade level or does not have vending, school store, etc.**

				0	**Either of the following:** • Not mentioned • Indicates that schools shall "strive" to/"should" meet the Dietary Guidelines. **Example:** • "...must include items that meet the 2005 Dietary Guidelines for Americans."
				1	**Any of the following:** • Limit is not quantified. • Limit is suggested, time- or location-specific, subject to principal's discretion, or weakened by other exceptions. • Specifies the 2005 Dietary Guidelines for Americans and no other standards (applies to all food items). • Restrictions on fat content only apply to a percentage of food items. **Examples:** • "All food and beverages available to students at school are recommended to be food items low in fat." • "The district will encourage students to make nutritious food choices and will ensure that...schools regulate the sale or serving of foods high in fat, sodium, or added sugars." • "The district shall consider sugar content, fat content, portion size, and lack of nutrients in all food and beverages sold or served to students." • "...50% of food items must contain no more than 40% of total calories from fat." • "Nutrition guidelines that require the use of products that are high in fiber, low in added fats, sugar, sodium, and served in appropriate portion sizes consistent with USDA standards shall be established for all foods offered by the district's nutrition services department or contracted vendors."

				2	**Quantified and required limit but > 35% total calories from fat** **Example:** • “Food and beverages sold outside the school meal program must contain no more than 40% of total calories/weight from fat." • "No individual food item can exceed 8 grams of fat per serving."
				3	**Meets Institute of Medicine standard: ≤ 35% of total calories from fat** **Example:** • "K-12 school food service, school store, and school vending machine sale of individual snack items per package shall include no more than 35% of calories from fat and nine grams maximum per serving with the exception of nuts."
				4	**Competitive food ban** **Example:** • “Competitive foods and beverages may not be sold on school campuses during the school day.”

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*

#	Item	Rating Guidance	
NS7	Addresses limiting sodium content of foods sold/served outside of USDA meals.	N/A	**Our school district does not have this grade level**
		0	**Either of the following:** • Not mentioned • Indicates that schools shall "strive" to meet or "should" meet the USDA Dietary Guidelines. **Example:** • "...must include items that meet the 2005 Dietary Guidelines for Americans."
		1	**Any of the following:** • Limit is not quantified. • Limit is suggested, time- or location-specific, subject to principal's discretion, or weakened by other exception. • Specifies the 2005 Dietary Guidelines for Americans and no other standards (applies to all food items). • Restrictions on sodium only apply to a percentage of food items. **Examples:** • "Foods to avoid—consume only occasionally: high sodium foods (luncheon meats, cheeses, salty popcorn, pickles)." • "The district will encourage students to make nutritious food choices and will ensure that...schools regulate the sale or serving of foods high in fat, sodium, or added sugars." • "...50% of food items must contain no more than 600mg of sodium." • "Nutrition guidelines that require the use of products that are high in fiber, low in added fats, sugar, sodium, and served in appropriate portion sizes consistent with USDA standards shall be established for all foods offered by the district's nutrition services department or contracted vendors."

				2	**Quantified and required limit but is > 200 mg/portion** **Example:** • "A snack food item sold individually shall contain no more than 240 mg of sodium per serving.
				3	**Meets Institute of Medicine standard: ≤ 200 mg/portion for snacks** **Example:** • "A snack food item sold individually shall contain no more than 200 mg of sodium per serving."
				4	**Competitive food ban**

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*

#	Item	Rating Guidance	
NS8	Addresses limiting calorie content per serving size of foods sold/served outside of USDA meals.	N/A	**Our school district does not have this grade level**
		0	**Not mentioned** If policy specifies the current Dietary Guidelines for Americans and no other standards, rate as a "0." Limiting calories from fat, sugar, or any other group of nutrients does not qualify for a rating of "1" or "2." Provisions related to limiting "additional caloric sweeteners" also do not qualify for a rating of "1" or "2."
		1	**Any of the following:** • Limit is not quantified. • Limit is suggested, time- or location-specific, subject to principal's discretion, or weakened by other exceptions. • Restrictions only apply to a percentage of food items.

					Examples: • "Foods sold outside of the National School Lunch Program shall contain a reasonable number of calories per package." • "...50% of food items must contain no more than 300 calories/serving."
				2	**Quantified and required limit but > 200 calories/per serving** **Example:** • "Individually sold snack items shall not exceed 240 calories per package."
				3	**Meets Institute of Medicine standard: ≤ 200 calories/serving** **Example:** • "Individually sold snack items shall not exceed 200 calories per package."
				4	**Competitive food ban** **Example:** • "Competitive foods and beverages may not be sold on school campuses during the school day."

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*

#	Item	Rating Guidance	
NS9	Addresses increasing "whole foods" (whole grains, unprocessed foods, or fresh produce) sold/served outside of USDA meals.	N/A	**our school district does not have this grade level**
		0	**Any of the following:** • Not mentioned

				• Mentions only dried fruit, fruit juice, fruit roll-ups, etc. • Indicates that schools shall "strive" to meet or "should" meet the USDA Dietary Guidelines. • Reference to whole grains, fresh fruits, etc., only relative to school meals. • Mentions only high-fiber items. **Examples:** • "...must include items that meet the 2005 Dietary Guidelines for Americans."
			1	**Any of the following:** • Encourages offering/consumption of whole grains, unprocessed foods, or fresh produce. • Farm-to-School program is suggested. • Specifies the current Dietary Guidelines for Americans and no other standards. • List of food items includes fruits/vegetables that may include but are not limited to a list of items including non-fresh fruits/vegetables (e.g., dried/canned fruits/vegetables). **Examples:** • "Schools are encouraged to make available locally grown produce to students for all school meals and food items sold outside of the reimbursable school meal program." "Schools are encouraged to source fresh fruits and vegetables from local famers where practical."
			2	**Either of the following:** • Definitively offering whole grains, unprocessed foods, or fresh produce • Farm to School program is required or definitively in place **Examples:** • "At least half of the grains served will be

			whole grains." • "Only brown rice shall be served." • "Produce from area farms shall be sold/served at all locations where food and beverages are sold/served."

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*				
NS10		Addresses food not being used as a reward.	N/A	**Our school district does not have this grade level**
			0	**Any of the following:** • Not mentioned • Encourages the use of healthy food as a reward. • Discourages using unhealthy food as a reward (e.g., donuts, Foods of Minimal Nutritional Value, etc.). • Use of food as a reward in instructional programs shall require superintendent approval. Examples: • "The district will provide teachers with guidelines on the use of food as a reward without specifying guidelines." • "Staff is encouraged to limit the use of non-nutritious food as a reward/incentives and to promote nutritious options."
			1	**Any of the following:** • Discourages food as a reward • Only allows healthy food as a reward **Examples:** • "...strongly discourage the use of food/beverages as a reward or punishment." • "...will encourage non-food alternatives as rewards." • "Only healthy foods will be used as a reward." • "Food should not be used as a reward." • "Schools are encouraged to not use food

					or beverages that do not meet the nutrition standards for food and beverages sold individually as rewards." • "Teachers shall not use food as a reward, especially those that do not meet the nutrition standards."
				2	**Prohibits food as a reward.** Prohibition of food as a reward with the exception of Individual(ized) Academic Plans (IAP) or Individual(ized) Education Plans (IEP) still qualifies for a rating of "2." **Examples:** • "Food rewards or incentives shall not be used in classrooms to encourage student achievement or desirable behavior." • "The use of food or candy as a classroom reward for any school is prohibited."

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*

#	Item	Rating Guidance	
NS11	Addresses limiting sugar content of beverages sold/served outside of USDA meals. (If the policy specifies guidelines for limiting added sugar in food, do not assume these guidelines apply to beverages).	N/A	**Our school district does not have this grade level**
		0	**Any of the following:** • Not mentioned. • Indicates that competitive beverages "should include" specific beverage items. **Examples:** • "Competitive beverages should include milk, water, and 100% juice."
		1	**Any of the following:** • Limit is not quantified/specific. • Limit is suggested, time- or location-specific, subject to principal's discretion, or weakened by other exceptions. • Restriction only applies to a percentage of beverages. • Indicates that competitive beverages "must/shall include" specific beverage items (which includes 100% juice).

					Examples: • "...discourages sugar-laden beverages." • "...50% of beverages must contain no caloric sweeteners." • "The district shall consider sugar content, fat content, portion size, and lack of nutrients in all food and beverages sold or served to students." • "50% of beverages must be 100% juice, milk, water, and electrolyte replacement drinks.
				2	**Limit is quantified/specific, but beverages other than water, 100% juice and milk are allowed.** **Examples:** • "Beverages sold outside the school meal program must contain no more than 40% of total calories/total weight from sugar." • Sweetened teas, sports drinks, juice drinks and other beverages may not contain more than 66 calories per 8 oz serving. • Flavored milk may contain no more than 4 g of sugar per oz. • "...shall prohibit soda and allow only water and beverages that are at least 50% juice."
				3	**Meets Institute of Medicine Standard: Prohibits beverages other than water, 100% fruit or vegetable juice, and flavored milk with no more than 22g total sugar per 8 oz.** **Examples:** • "Beverages with added sugars are not allowed." • "Only water and 100% juice will be allowed at school." • "Prohibits the sale of beverages with additional caloric sweeteners."

				4	**Competitive food ban** **Example:** • "Competitive foods and beverages may not be sold on school campuses during the school day."

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*

#	Item		Rating Guidance	
NS12	Addresses limiting regular (sugar-sweetened) soda sold/served outside of USDA meals. (If the policy specifies guidelines for limiting added sugar in food, do not assume these guidelines apply to beverages).		N/A	**Our school district does not have this grade level**
			0	**Any of the following:** • Not mentioned. • Only prohibits Foods of Minimal Nutritional Value during meal times, or indicates that they should not be used as a source of revenue for the food service program. • Encourages minimizing Foods of Minimal Nutritional Value on school campuses. **Example**: • "The food service program shall strive to be financially self-supporting; however, if it is necessary to subsidize the operation, it will not be through the sale of Foods of Minimal Nutritional Value."
			1	**Any of the following:** • Regular soda is limited but not prohibited. • Prohibition of regular soda is suggested, time- or location-specific, or overridden by principal's discretion. • Restriction only applies to a percentage of beverages. **Examples:** • "If available, food and beverages sold individually should be limited to low-fat and non-fat milk, fruits, and non-fried

					vegetables." • "At least 50% of beverages must be 100% juice, milk, water, and electrolyte replacement drinks."
				2	**Any of the following:** • Regular soda is prohibited. • Foods of Minimal Nutritional Value are prohibited at all times on school grounds (the definition of Foods of Minimal Nutritional Value includes soda). • Soda is prohibited except for use by the school nurse. **Example:** • "Soda will not be available on school grounds."
				3	**Meets Institute of Medicine Standard: Beverages with added caloric sweeteners are prohibited** **Examples:** • "Only milk, water, and 100% juice will be available at school." • "Approved beverages: milk, milk products, 100% juice, and water."
				4	**Competitive food ban** **Example:** • "Competitive food and beverages may not be sold on school campuses during the school day."

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*			
#	**Item**	**Rating Guidance**	
NS13	Addresses limiting fat content of milk sold/served outside of	N/A	**Our school district does not have this grade level**

		school meals. (If the policy addresses limiting the fat content of foods, do not assume these policies apply to milk).		0	**Not mentioned** • Mentioning nonfat or low-fat dairy products/foods does not qualify for a rating of "1" or "2." If policy explicitly allows whole milk, code as a "0."
				1	**Full-fat milk is prohibited, but only reduced-fat (2%) milk is available.** **Example:** • "Schools shall provide reduced-fat milk where beverages are sold."
				2	**Any of the following:** • Full-fat milk is prohibited, but reduced-fat (2%) and low-fat (1%) or skim milk are available. • Policy mentions that non-fat/skim, low-fat (1%), are "offered," or "provided" without specifying "only." • Limiting milk to only low-fat (1%) or non-fat/skim is specified but suggested, time- or location-specific, subject to principal's discretion, or weakened by other exceptions. **Examples:** • "In high school, reduced fat, low-fat or skim milk may be sold." • "Schools shall offer fat-free milk where beverages are sold." • "At least 50% of beverage selections shall be 100% fruit juice, low fat or fat-free milk, and unflavored or unsweetened water."
				3	**Meets Institute of Medicine standard: only low-fat (1%) or non-fat/skim milk is allowed** **Example:** • "District schools will sell only low-fat milk."
				4	**Competitive food ban**

			Example: • "Competitive foods and beverages may not be sold on school campuses during the school day."

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*

#	Item	Rating Guidance	
NS14	Addresses serving size limits for beverages sold/served outside of school meals.	N/A	**Our school district does not have this grade level**
		0	**Not mentioned** • If policy specifies the 2005 Dietary Guidelines for Americans and no other standards, rate as a 0.
		1	**Either of the following:** • Limit for drinks other than water is greater than 12 ounces. • Limit is suggested, time- or location-specific, subject to principal's discretion, or weakened by other exceptions. **Examples:** • "All beverages other than water and milk shall be 12 oz. or less." • "The district shall consider sugar content, fat content, portion size, and lack of nutrients in all food and beverages sold or served to students."
		2	**Limit for drinks other than water is > Institute of Medicine standards, but no more than 12 ounces/serving** **Example:** • "Juice will be served to elementary school students in 6-ounce containers."
		3	**Meets Institute of Medicine standards (must meet ALL**

					standards to be rated as a "3"): • Water any size; AND • 8 oz./serving for milk (including flavored milk); AND • Elementary and middle school- Juice: 4 oz./serving for 100% juice; • High school- Juice: 8 oz./serving for 100% juice. **Example:** • "District schools will follow the Institute of Medicine's recommendations for beverage serving sizes."
				4	**Competitive food ban** **Example:** • "Competitive foods and beverages may not be sold on school campuses during the school day."

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*

#	Item	Rating Guidance	
NS15	Addresses access to free drinking water.	N/A	**Our school district does not have this grade level**
		0	**Any of the following:** • Not mentioned. • Policy only addresses the sale of bottled water. • Providing access to drinking water/fountains only during meal periods/in the cafeteria. • Allowing students to bring in bottled water from home. • Only addresses water available in the context of physical education/physical activity. **Examples:** • "Schools should ensure that students have access to appropriate hydration and are encouraged to make use of it

			during physical activity." • "Students will have access to a drinking fountain during meals."
		1	**Availability of free water is suggested or encouraged** **Examples:** • "Water shall be accessible during hours of school operation through choices such as drinking fountains or vending machines." • "Schools are encouraged to provide drinking fountains throughout the school campus."
		2	**Free water is always available** **Example:** • "Students and staff will have access to free, safe, and fresh drinking water throughout the school day." • "Drinking water fountains will be made available to students and staff throughout the school building." • "Students will be provided access to drinking water throughout the day."

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages *(continued)*

#	Item	Rating Guidance
NS16	Regulates food sold for fundraising at all times (not only during the school day).	N/A Note: Must specifically address "fundraising" for a rating of a "1" or "2." Regulating "all foods" during "the school day" or "at all times on school grounds" does NOT qualify for a rating of "1" or "2" because fundraising can occur off school grounds (e.g., catalogue orders for candy or cookie sales). **Our school district does not have this grade level**
		0 **Any of the following:** • No mention of nutrition standards for food sold for fundraising.

				• Strives to/should meet the 2005 Dietary Guidelines for Americans. • Mentions regulating food and beverages sold for fundraising/all food and beverages without specifying guidelines, • Mentions plans to establish guidelines for school-sponsored fundraising that involves selling food without mentioning guidelines, healthy food, etc.
			1	**Any of the following:** • Regulations of food sold for fundraising are vague, suggested, time- or location-specific, subject to principal's discretion, or weakened by other exceptions. • The 2005 Dietary Guidelines for Americans and no other standards are mentioned to regulate food sold for fundraising. • Regulations of food sold for fundraising only apply to a limited group of foods (e.g. prohibiting Foods of Minimal Nutrition Value) or a percentage of items sold. **Examples:** • "...strongly encouraging the use of only non-food items to raise funds." • "...requiring administrative approval for all fundraisers." • "The district shall provide parents with a list of foods that meet the Board's snack standards for healthy celebrations/parties, rewards, and fundraising activities" (and no other language related to fundraising is included in the policy). • "Fundraising activities will strive to support healthy eating and wellness."
			2	**Any of the following:** • Regulate nutritional quality of each individual item sold for fundraising (e.g., regulating maximum calorie, sugar, or saturated fat content of ALL items sold). • Provide a specific and restricted list of food items allowed to be sold for fundraising (e.g., limiting sales to water,

			fruits, vegetables, whole grains, and nuts). • Provide a comprehensive list of prohibited unhealthy foods (e.g., baked goods, sweetened beverages, and candy) from being sold for fundraising. • Prohibits the sale of food for fundraising. **Example:** • "Foods purchased to raise funds must also meet the District's Nutrition Standards" – and standards are defined.

Section 4. Physical Education and Physical Activity

Many states list National Association for Sport & Physical Education (NASPE) standards. Only rate a "2" for items with NASPE defaults if district actually requires schools to follow NASPE standards, and it is clear from the context of the statement that NASPE standards apply to those items. If NASPE standards are suggested, rate as "1."

#	Item	Rating Guidance	
PEPA1	Addresses written physical education curriculum/program for each grade level.	0	**Either of the following:** • Not mentioned. • Physical education is included in the health education curriculum. **Example:** • "Division health education curriculum standards and guidelines address both nutrition and physical education."
		1	**Any of the following:** • Unclear if each grade has a physical education curriculum/program. • A curriculum is identified but limited to only some grade levels. • Addresses minimum amount of time for physical education but does not mention curriculum/program. **Example:** • "Physical education will be provided in K-8" (in a district that extends beyond grade 8).

			2	**Either of the following:** • Clear that district has a written physical education curriculum/program for each grade (e.g., policy describes a general physical education curriculum/program for "K-12," "all levels," or "all students"). • Clear that written physical education program is provided for "K-12," "all levels" or "all grades," and mentions time requirements (without using the word "curriculum"). **Example:** • "The Physical Education Committee will submit for approval a K-12 comprehensive curriculum/program. All students in grades 1-5 will be scheduled for physical education instruction in accordance with state law. All students in grades 6-8 and 9-11 shall participate in the instructional program of physical education. Physical education in grade 12 is an elective."
PEPA2	Addresses time per week of physical education for elementary school students.		N/A	**My district does not have an elementary school**
			0	**Not mentioned**
			1	**Any of the following:** • Suggests but does not require 150 minutes/week. • Specifies total amount of physical education, but it is less than 150 minutes/week. • Suggests that schools follow NASPE standards. • Specifies number of classes per week without duration. • Time is specified for overall physical activity that specifically includes physical education. **Example:** • "Schools will use NASPE standards as a guide when planning physical

			education classes."
		2	**Either of the following:** • Requires 150 minutes/week or more of physical education. • Requires schools to follow NASPE standards. **Example:** • "Students shall receive 150 minutes per week of physical education instruction, per NASPE guidelines."

PEPA3	Addresses time per week of physical education for middle school students.	N/A	**My district does not have a middle school**
		0	**Not mentioned**
		1	**Any of the following:** • Suggests but does not require 225 minutes/week. • Specifies total amount of physical education, but it is less than 225 minutes/week. • Suggests that schools follow NASPE standards. • Specifies number of classes per week without duration. • Time is specified for overall physical activity that specifically includes physical education. **Example:** • "Schools will make an effort to plan classes so that students may participate in physical education daily."
		2	**Either of the following:** • Requires 225 minutes/week or more of physical education. • Requires schools to follow NASPE standards. **Example:** • "The school district requires that all

			middle and high school students receive 225 minutes of physical education instruction per week."

Section 4. Physical Education and Physical Activity*(continued)*

#	Item	Rating Guidance	
PEPA4	Addresses time per week of physical education for high school students.	N/A	**My district does not have a high school**
		0	**Not mentioned**
		1	**Any of the following:** • Suggests but does not require 225 minutes/week. • Specifies total amount of physical education, but it is less than 225 minutes/week. • Suggests that schools follow NASPE standards. • Specifies number of classes per week without duration. • Time is specified for overall physical activity that specifically includes physical education. **Example:** • "Every effort will be made to make physical education available to students daily."
		2	**Either of the following:** • Requires 225 minutes/week or more of physical education. • Requires schools to follow NASPE standards. **Example:** • "District schools will follow NASPE standards when scheduling physical education classes for all students."
PEPA5	Addresses teacher-student ratio for physical education.	0	**Not mentioned**
		1	**Vague and/or suggested**

			Examples: • "For physical education classes, the district shall staff those classes to provide for student safety and maximize student participation." • "Physical education classes will have student/teacher ratios similar to those used in other classes." • "Physical education class size is consistent with the requirement of good instruction and standing."
		2	**Specific and required** **Example:** • "Physical education classes will have the same student/teacher ratios used in other classes."
PEPA6	Addresses adequate equipment and facilities for physical education.	0	**Any of the following:** • Not mentioned. • Generic statements about safe environment/facilities that do not mention physical education or indicative of equipment used for physical education. • Suggests that schools follow "national physical education standards or nationally recognized guidelines for physical education and physical activity" without mentioning NASPE standards. **Example:** • "Creating a positive environment for PA – all schools in the district will provide a physical and social environment that encourages safe and enjoyable activity for all students."
		1	**Any of the following:** • Suggested or encouraged. • Mentions NASPE standards OR the standards of American Alliance for Health, Physical Education, Recreation and Dance. (This Alliance embeds

				NASPE.) • Requires schools to follow "national physical education standards or nationally recognized guidelines for physical education and physical activity" without mentioning NASPE standards. • Indicates that play areas, facilities, and equipment used for physical activity shall meet accepted standards. **Examples:** • "Pursuant to district XYZ, physical education is required to be offered to all pupils; therefore, schools are required to provide adequate facilities and instructional resources for the institution."
			2	**Ensures that equipment and facilities specifically used for physical education are adequate** NASPE standards do not qualify for a rating of a "2." **Example:** • "The physical education program shall be provided adequate space and equipment and conform to all applicable safety standards."

Section 4. Physical Education and Physical Activity *(continued)*

#	Item	Rating Guidance	
PEPA7	Addresses qualifications for physical education instructors.	0	**Not mentioned**
		1	**Either of the following:** • Credentials are vaguely referred to or suggested. • NASPE standards are suggested. **Examples:** • "Physical education shall be taught by appropriate staff." • "When possible, physical education will be taught by a licensed instructor."

		2	**Either of the following:** • Requires that physical education be taught by a licensed instructor. • Requires schools to follow NASPE standards. **Example:** • "Physical education will be taught by a licensed instructor."
PEPA8	District provides physical education training for physical education teachers.	0	**Either of the following:** • Not mentioned. • Staff only receives training/professional development related to physical activity without mention of physical education.
		1	**Suggested that all staff or physical education staff receive physical education-related training/professional development** **Example:** • "All staff involved in physical education should be provided with opportunities for professional development."
		2	**Provision of physical education training is required for physical education teachers** If physical education-specific training is provided for a broader set of staff or teachers, it is assumed that physical education teachers are included and will receive the training too. **Example:** • "Ensures PE staff will receive professional development on a yearly basis." "...shall provide staff with adequate training in PE."

PEPA9		Addresses physical education waiver requirements (e.g., substituting physical education requirement with other activities).		0	**Either of the following:** • Not mentioned. • Waivers for physical education are explicitly allowed in all instances. **Example:** • "Unless otherwise exempted, all students will be required to engage in the physical education program." An exemption could include physical education waivers.
				1	**Either of the following:** • Waivers for physical education are discouraged. • Waivers for physical education are prohibited with the exception of substituting physical activities (e.g., team sports) for physical education. **Example:** • "Academic activities shall not take the place of physical education. However, students on the school's sports teams may substitute participation for physical education credits.
				2	**Prohibits substituting physical education with other activities, including physical activities.** • Rate this item as a "2" if waivers are prohibited with the exception of Individual(ized) Academic Plans (IAP) or Individual(ized) Education Plans (IEP). Rate this item as a "2" for the elementary level if the policy prohibits recess from taking the place of physical education. **Example:** • "Schools shall not give physical education credit to student involved in sports. Sports and academic activities may not take the place of physical education."

PEPA10		Regular physical activity breaks are provided for elementary school students during classroom time, not including PE and recess.		0	**Either of the following:** • Not mentioned. • Only addresses physical activity before or after school.
				1	**Vague and/or suggested** **Example:** • "Classrooms shall incorporate, where possible, appropriate, short breaks that include physical movement."
				2	**Either of the following:** • Regular physical activity throughout the day is required. • Policy requires training for teachers on activities that incorporate physical activity throughout the day. **Examples:** • "Physical activity opportunities shall be offered daily during the school day." • "Shall provide Take 10! training to all teachers."
PEPA11		Addresses structured physical activity before or after school through clubs, classes, intramurals or interscholastic activities.		0	**Not mentioned**
				1	**Either of the following:** • Provision is suggested. • A list of physical activities that should be offered includes intramurals. **Example:** • "Intramural offerings should be maintained at present levels and steadily increased to accommodate elementary, middle, and high school grades."
				2	**Provision of physical activity classes, clubs, intramurals or interscholastic activities is required.** **Example:** • **"**Participation in intramural sports shall

					be an option for all students."
PEPA12		Addresses community use of school facilities for physical activity outside of the school day.		0	**Not mentioned**
				1	**Availability of school facilities for physical activity is suggested** **Example:** • "The district should allow community-based organizations to use facilities outside school hours."
				2	**Either of the following:** • States effort to promote the use of facilities. • Ensures that facilities will be available. **Example:** • "The district is encouraged to promote the use of school facilities outside of school hours for physical activity programs offered by community-based organizations."
PEPA13		Addresses not restricting physical activity as punishment.		0	**Not mentioned**
				1	**Discouraged** **Example:** • "Students should not be pulled out of physical education for any other content area instruction or punishment."
				2	**Prohibition with exceptions for Individual(ized) Academic Plans (IAP) or Individual(ized) Education Plans (IEP)** **Example:** • "Staff members shall not deny participation in recess or other physical activity opportunities as a form of discipline or punishment

					unless the safety of students is in question."

PEPA14		Addresses provision of daily recess in elementary school.		0	**Not mentioned**
				1	**Either of the following:** • Recess is included in a list of possible activities offered daily. • It is suggested that recess will be provided daily. **Example:** • "Supervised recess time should be provided to all students within each school day at all elementary schools."
				2	**Specific and required** **Example:** • "All elementary school students shall have daily recess."
PEPA15 +		Addresses amount of time devoted to moderate to vigorous physical activity in physical education.		0	**Not mentioned.** Recess and other physical activities do not qualify; must be PE specific.
				1	**Any of the following:** • Suggested. • Duration is not specific. • Duration is less than 50% of class time. **Example:** • "The physical education program shall devote as much class time as possible to moderate and vigorous physical activity." • "All students shall have opportunities to be physically activity on a regular basis. Opportunities for moderate to vigorous physical activity shall be provided through physical education, recess, school athletic program, and extracurricular activities.
				2	**The following:** • At least 50% of physical education class time is designated for moderate to

					vigorous physical activity. **Example:** • "All physical education classes to include at least 50% of moderate to vigorous physical activity in all or most lessons."

PEPA16+		Addresses safe-active routes to school.	0	**Not mentioned**
			1	**Vague or Suggested:** **Example:** • "The school district may consider programs such as promoting safe and walkable routes to school."
			2	**Ensures effort to promote safe-active routes to school (e.g., seeking funding, collaborating with local transit, organizing walking school bus, providing safe walking paths, or mapping and distributing safe routes to students and parents)** **Example:** • "Each school is responsible for working with community groups to facilitate and promote walking and biking to school by students and staff using safe routes and safe practices." • "The school district will procure assist schools with safe-routes-to-school grants."

PEPA17+		District provides physical activity training for all teachers in integrating physical activity into the curriculum.		0	**Either of the following:** • Not mentioned. • Staff only receives training/professional development related to physical activity without mention of physical education.
				1	**Suggested that all staff receive physical education-related training/professional development** **Example:** • "All staff involved should be provided with opportunities for professional development."
				2	**Provision of integrating physical activity training is required for all teachers** Physical activity-specific training is provided for a broader set of staff or teachers. **Example:** • "Ensures staff will receive professional development on a yearly basis." "...shall provide staff with adequate training in physical activity integration."

Section 5. Evaluation

#	Item	Rating Guidance	
E1	Establishes a plan for policy implementation.	0	**Not mentioned**
		1	**Either of the following:** • Identifies having or developing a plan without strong language. • Suggests that effort will be made to implement only parts of the policy. **Example:**

			• "The district will strive to implement the policy by..."
		2	**Uses strong language and identifies having or developing a plan for implementing specific policy changes.** **Example:** • "The principal shall ensure that vending machines are in compliance with district standards by the end of the first quarter of the school year."
E2	Addresses a plan for policy evaluation.	0	**Not mentioned**
		1	**Either of the following:** • Some kind of pre-policy and post-policy assessment is implied. **Example:** • "The district expects to conduct an assessment of the health and fitness policy in the spring."
		2	**ALL of the following:** • An evaluation plan is required. • Specific outcomes to be measured are stated (e.g., student fitness test, number of classes/workshops held, meal participation rates, fiscal impact, student learning, School Health Index). **Example:** • "The Advisory Council shall meet at least annually to review nutrition and physical activity policies, evidence on student health impact, and effective programs and program elements."

Section 5. Evaluation *(continued)*

#	Item	Rating Guidance	
E3	Addresses providing a progress report to a specific audience.	0	**Not mentioned**
		1	**It is suggested that there will be a progress report** **Example:** • "The wellness committee will discuss ways to present their progress to the Superintendent."
		2	**ALL of the following:** • Reporting on progress is required. • It is clear that a report will be made to a specific audience (e.g., Board of Education, administration, Parent Teacher Association/ Parent Teacher Organization, and the public). **Example:** • "The advisory council shall prepare a report annually for the Superintendent evaluating the implementation of the policy and regulations and include any recommended changes or revisions."
E4	Identifies a plan for revising the policy.	0	**Not mentioned**
		1	**Either of the following:** • Future intention in making a decision to revise. **Examples:** • "May meet to discuss revisions to policy." • "May suggest changes."
		2	**Discusses revision to policy in any way by any person or group** **Examples:**

					• "Will meet to discuss revisions to policy." • "The policy shall be revised as necessary."

School Wellness Policy Score Sheet

District ID _____

The following tables include wellness policy statement numbers and item descriptions broken down by section. Please rate the level to which each policy item is addressed in the school wellness policy.
0 = Not mentioned
1 = Weak Statement
2,3,4 = Meets/Exceeds Expectations

Section 1. Nutrition Education and Wellness Promotion		
Rating	#	Item
	NEWP1	Provides nutrition curriculum for each grade level.
	NEWP2	Links nutrition education with the school food environment.
	NEWP3	Nutrition education teaches skills that are behavior focused.
	NEWP4	Encourages staff to be role models for healthy behaviors.
	NEWP5	Specifies district using the Centers for Disease Control and Prevention's (CDC) Coordinated School health program model or other coordinated/comprehensive method.
	NEWP6	Specifies how district will engage families to provide information and/or solicit input to meet district wellness goals (e.g., through website, e-mail, parent conferences, or events).
	NEWP7	Specifies marketing to promote healthy choices.
	NEWP8	Specifies restricting marketing of unhealthful choices.
	NEWP9	Establishes an advisory committee to address health and wellness that is ongoing beyond policy development.
Section 2. Standard for USDA Child Nutrition Programs and School Meals		
Rating	#	Item
	US1	Addresses access to and/or promotion of the School Breakfast Program (USDA)
	US2	Addresses nutrition standards for school meals beyond USDA (National School Lunch Program / School Breakfast Program) minimum standards. Note: USDA "school meals" include beverages served with the meal.
	US3	Specifies strategies to increase participation in school meal programs. ("School meal programs" can be assumed to refer to breakfast and/or lunch.)
	US4	Ensures adequate time to eat.
	US5	Ensures nutrition training for food service director and/or onsite manager (or other person responsible for menu planning).

	US6	Addresses school meal environment.
	US7	Nutrition information for school meals (e.g. calories, saturated fat, sugar) is available.

Section 3. Nutrition Standards for Competitive and Other Foods and Beverages		
Rating	#	Item
	NS1	Regulates vending machines.
	NS2	Regulates school stores. Note: If policy only mentions concessions or snack bars, do not code for school stores, unless policy defines concessions and/or snack bars as including school stores.
	NS3	Regulates food service a la carte OR food sold as an alternative to the reimbursable school meal program (if not defined as to what this means).
	NS4	Regulates food served at class parties and other school celebrations.
	NS5	Addresses limiting sugar content of foods sold/served outside of USDA meals.
	NS6	Addresses limiting fat content of foods sold/served outside of USDA meals.
	NS7	Addresses limiting sodium content of foods sold/served outside of USDA meals.
	NS8	Addresses limiting calorie content per serving size of foods sold/served outside of USDA meals.
	NS9	Addresses increasing "whole foods" (whole grains, unprocessed foods, or fresh produce) sold/served outside of USDA meals.
	NS10	Addresses food not being used as a reward.
	NS11	Addresses limiting sugar content of beverages sold/served outside of USDA meals. (If the policy specifies guidelines for limiting added sugar in food, do not assume these guidelines apply to beverages).
	NS12	Addresses limiting regular (sugar-sweetened) soda sold/served outside of USDA meals. (If the policy specifies guidelines for limiting added sugar in food, do not assume these guidelines apply to beverages).
	NS13	Addresses limiting fat content of milk sold/served outside of school meals. (If the policy addresses limiting the fat content of foods, do not assume these policies apply to milk).
	NS14	Addresses serving size limits for beverages sold/served outside of school meals.
	NS15	Addresses access to free drinking water.
	NS16	Regulates food sold for fundraising at all times (not only during the school day).

Section 4. Physical Education and Physical Activity		
Rating	#	Item
	PEPA1	Addresses written physical education curriculum/program for each grade level.
	PEPA2	Addresses time per week of physical education for elementary school students
	PEPA3	Addresses time per week of physical education for middle school students.
	PEPA4	Addresses time per week of physical education for high school students.
	PEPA5	Addresses teacher-student ratio for physical education
	PEPA6	Addresses adequate equipment and facilities for physical education.
	PEPA7	Addresses qualifications for physical education instructors.
	PEPA8	District provides physical education training for physical education teachers.
	PEPA9	Addresses physical education waiver requirements (e.g., substituting physical education requirement with other activities).
	PEPA10	Regular physical activity breaks are provided for elementary school students during classroom time, not including PE and recess.

	PEPA11	Addresses structured physical activity before or after school through clubs, classes, intramurals or interscholastic activities.
	PEPA12	Addresses community use of school facilities for physical activity outside of the school day.
	PEPA13	Addresses not restricting physical activity as punishment.
	PEPA14	Addresses provision of daily recess in elementary school.
	PEPA15+	Addresses amount of time devoted to moderate to vigorous physical activity in physical education.
	PEPA16+	Addresses safe / active routes to school.
	PEPA17+	District provides physical activity training for all teachers in integrating physical activity into the curriculum.

Section 5. Evaluation		
Rating	#	Item
	E1	Establishes a plan for policy implementation.
	E2	Addresses a plan for policy evaluation.
	E3	Addresses providing a progress report to a specific audience.
	E4	Identifies a plan for revising the policy.

Review scoring information on page 4.

Section 1: Comprehensiveness= (total # of items in Section 1 receiving a "1" or "2" /9) x 100=_____

Strength= (total number of items in Section 1 receiving a "2" /9) x 100=_____

Section 2: Comprehensiveness= (total # of items in Section 2 receiving a "1" or "2" /7) x 100=_____

Strength= (total number of items in Section 2 receiving a "2" /7) x 100=_____

Section 3: Comprehensiveness= (total # of items in Section 3 receiving a "1","2","3",or "4" /16) x 100=_____

Strength= (total number of items in the Section 3 receiving a "2" "3",or "4" /16) x 100=_____

Section 4: Comprehensiveness= (total # of items in Section 4 receiving a "1" or "2" /17) x 100=_____

Strength= (total number of items in Section 4 receiving a "2" /17) x 100=_____

Section 5: Comprehensiveness= (total # of items in Section 5 receiving a "1" or "2" /4) x 100=_____

Strength= (total number of items in Section 5 receiving a "2" /4) x 100=_____

Total Comprehensiveness= (total number of items in ALL sections receiving a “1”,“2”,”3”,or “4” /50) x 100=_____

Total Strength= (total number of items in ALL sections receiving a “2” ”3”,or “4” /50) x 100=_____

Appendix E
WellSAT Evaluation Sheet Developed by Lead Coder (2014)

DISTRICT		0= Not mentioned	
SCHOOL YEAR		1= Weak statement	
EVALUATOR		2= Meets/exceeds expectations	
DISTRICT ID		3= IOM standards	
DATE		4= Ban	
ELEMENT	**LABEL**	**SCORE**	**NOTES**
1. Nutrition Education and Wellness Promotion (Score: 0-2)			
NEWP1	Nutrition curriculum		
NEWP2	Nutrition education and school environment		
NEWP3	Nutrition education skills		
NEWP4	Staff as role models		
NEWP5	School health model or coordinated method		
NEWP6	Family engagement		
NEWP7	Healthy marketing		
NEWP8	Unhealthy marketing restrictions		
NEWP9	Health and wellness advisory committee		
Comprehensive	(total # of 1 or 2 in section 1 /9) x 100		
Strength	(total # of 2 in section 1 /9) x 100		

2. Standards for Child Nutrition Programs and School Meals (Score: 0-2)		**SCORE**	**NOTES**
US1	School Breakfast Program		
US2	Nutrition standards beyond NSLP		
US3	School meal participation strategies		
US4	Adequate time to eat		
US5	Nutrition training for food service director		
US6	School meal environment		
US7	Nutrition information for school meals		
Comprehensive	(total # of 1 or 2 in section 2 /7) x 100		
Strength	(total # of 2 in section 2 /7) x 100		

3. Standards for Competitive Foods (Score: 0-3)		**ALL**	**ES**	**MS**	**HS**	**NOTES**
NS1	Vending machine regulation					
NS2	School store regulation					
NS3	Food service ala carte regulation					
NS4	School celebration food regulation					
NS5	Sugar content limits of competitive foods					
NS6	Fat content limits of competitive foods					
NS7	Sodium content limits of competitive foods					
NS8	Calorie content per serving size of comp. foods					
NS9	Increased "whole foods" of competitive foods					
NS10	Food not used as a reward					

NS11	Sugar content limits of competitive beverages		
NS12	Limits on soda		
NS13	Limits of fat content of milk outside school meals		
NS14	Serving size limits for beverages		
NS15	Access to free drinking water		
NS16	School fundraising food regulations		
Comprehensive	(total # of 1, 2, 3 or 4 in section 3 /16) x 100		
Strength	(total # of 2, 3 or 4 in section 3 /16) x 100		
4. Physical Education and Activity (Score: 0-2)		**SCORE**	**NOTES**
PEPA1	Written PE program per grade		
PEPA2	Time per week of PE for ES		
PEPA3	Time per week of PE for MS		
PEPA4	Time per week for PE of HS		
PEPA5	Teacher-student ratio		
PEPA6	Adequate equipment and facilities for PE		
PEPA7	Qualifications for PE instructors		
PEPA8	PE training for PE teachers		
PEPA9	PE waiver requirements		
PEPA10	PA breaks during classroom time for ES		
PEPA11	Structured PA before or afterschool		

PEPA12	Community use of school facilities		
PEPA13	Not restricting PA as punishment		
PEPA14	Daily recess for ES		
PEPA15+	Moderate to vigorous PA in PE		
PEPA16+	Safe-active routes to school		
PEPA17+	PA teacher training to integrate PA into curriculum		
Comprehensive	(total # of 1 or 2 in section 4 /17) x 100		
Strength	(total # of 2 in section 4 /17) x100		
5. Evaluation (Score: 0-2)		**SCORE**	**NOTES**
E1	Policy implementation plan		
E2	Policy evaluation plan		
E3	Progress report to specific audience		
E4	Policy revision plan		
Comprehensive	(total # of 1 or 2 in section 5 /4) x 100		
Strength	(total # of 2 in section 5 /4) x 100		
Total Comprehensiveness	(total # items in ALL sections with 1, 2, 3, or 4 /53) x 100		
Total Strength	(total # in ALL sections with 2, 3, or 4 /53) x 100		
ADDITIONAL OBSERVATIONS:			

REC'D URC

Oklahoma State University Institutional Review Board

OCT 1 8 2013

Request for Determination of Non-Research or Non-Human Subject

Federal regulations and OSU policy require IRB review of all research involving human subjects. Some categories of research are difficult to discern as to whether they qualify as human subject research. Therefore, the IRB has established policies and procedures to assist in this determination.

1. Principal Investigator Information

First Name: Jessica	Middle Initial: L.	Last Name: Berg
Department/Division: Nutritional Sciences		College: Human Sciences
Campus Address: N/A		Zip+4: N/A
Campus Phone: N/A	Fax: N/A	Email: bergjl@okstate.edu
Complete if PI does not have campus address:		
Address: 2131 Sunset Drive		City: Stillwater
State: OK	Zip: 74074	Phone: 802-299-0138

2. Faculty Advisor (complete if PI is a student, resident, or fellow) ☐ **NA**

Faculty Advisor's name: Kevin Fink		Title: Dr.
Department/Division: Nutritional Sciences		College: Human Sciences
Campus Address: 301 Human Sciences		Zip+4: 74078
Campus Phone: 405-744-3841	Fax: 744-1357	Email: kevin.fink@okstate.edu

3. Study Information:

A. Title
Evaluation of School Wellness Policies in Oklahoma

B. Give a brief summary of the project. (See instructions for guidance)
How are school wellness policies being developed in Oklahoma?
School wellness policies of 174 school districts throughout Oklahoma will be submitted by the Oklahoma Department of Education (OSDE) to Dr. Deana Hildebrand, an associate professor in Nutritional Sciences, for evaluation of content strength and comprehensiveness. A trained research team will use the WellSAT, a validated tool, to code and evaluate each policy. The purpose of this research study is to analyze relationships between school district demographics, socioeconomic, and academic characteristics of a Midwestern state and measure the strength and comprehensiveness of school wellness policies in relation to nutrition education, nutrition standards for competitive foods, physical activity and physical education, community engagement and implementation and evaluation of these policies.

C. Describe the subject population/type of data/specimens to be studied. (See instructions for guidance)
The subject population will be 174 public school districts in Oklahoma. Districts will be recruited through OSDE Administrative Review, which has agreed to share submitted school policies with the Department of Nutritional Sciences. The school wellness policies will be the type of data submitted. These will be submitted by OSDE to a faculty member on the thesis committee (Dr. Deana Hildebrand). All school wellness policies, (scored and unscored) will be stored for up to 5 years in a locked office only accessible by the research team.

Oklahoma State University Institutional Review Board

Request for Determination of Non-Research or Non-Human Subject

4. Determination of "Research".

45 CFR 46.102(d): *Research* means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge. Activities which meet this definition constitute research for purposes of this policy whether or not they are conducted or supported under a program which is considered research for other purposes.

One of the following must be "no" to qualify as "non-research":

A. Will the data/specimen(s) be obtained in a systematic manner?
☐ No ☒ Yes

B. Will the intent of the data/specimen collection be for the purpose of contributing to generalizable knowledge (the results (or conclusions) of the activity are intended to be extended beyond a single individual or an internal program, e.g., publications or presentations)?
☐ No ☒ Yes

5. Determination of "Human Subject".

45 CFR 46.102(f): *Human subject* means a living individual about whom an investigator (whether professional or student) conducting research obtains: (1) data through intervention or interaction with the individual or (2) identifiable private information. Intervention includes both physical procedures by which data are gathered (for example venipuncture) and manipulations of the subject or the subject's environment that are performed for research purposes. Interaction includes communication or interpersonal contact between investigator and subject. Private information includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information which has been provided for specific purposes by an individual and which the individual can reasonably expect will not be made public (for example, a medical record). Private information must be individually identifiable (i.e., the identity of the subject is or may be ascertained by the investigator or associated with the information) in order for obtaining the information to constitute research involving human subjects.

A. Does the research involve obtaining information about living individuals?
☒ No ☐ Yes
If no, then research does not involve human subjects, no other information is required.
If yes, proceed to the following questions.

All of the following must be "no" to qualify as "non-human subject":

B. Does the study involve intervention or interaction with a "human subject"?
☐ No ☐ Yes

C. Does the study involve access to identifiable private information?
☐ No ☐ Yes

D. Are data/specimens received by the Investigator with identifiable private information?
☐ No ☐ Yes

E. Are the data/specimen(s) coded such that a link exists that could allow the data/specimen(s) to be re-identified?
☐ No ☐ Yes
If "*Yes*," is there a written agreement that prohibits the PI and his/her staff access to the link?
☐ No ☐ Yes

Oklahoma State University Institutional Review Board

Request for Determination of Non-Research or Non-Human Subject

6. Signatures

Signature of PI _____ **Date** 10/16/2013

Signature of Faculty Advisor _____ (DR REVIEWER) **Date** 10/18/13
(If PI is a student)

☒ Based on the information provided, the OSU-Stillwater IRB has determined that this project **does not** qualify as human subject research as defined in 45 CFR 46.102(d) and (f) and **is not subject to oversight by the OSU IRB.**

☐ Based on the information provided, the OSU-Stillwater IRB has determined that this research **does** qualify as human subject research and **submission of an application for review by the IRB is required.**

_____ for
Dr. Shelia Kennison, IRB Chair

10-21-13
Date

Appendix G

Individual School District Evaluations (2013-2014)

School District	NEWP COMP	NEWP STRGTH	US COMP	US STRGTH	NS COMP	NS STRGTH	PEPA COMP	PEPA STRGTH	E COMP	E STRGTH	TOTAL COMP	TOTAL STRGTH
Stillwater	77.78	44.44	85.71	57.14	87.50	81.25	35.23	17.65	75.00	50.00	67.93	49.06
Briggs	77.78	44.44	71.43	42.86	43.75	0.00	12.50	0.00	75.00	25.00	46.15	15.39
NorthRockCrk	55.56	44.44	42.86	0.00	37.50	0.00	0.00	0.00	50.00	50.00	30.77	11.54
Norwood	88.89	77.78	71.43	57.14	62.50	25.00	37.50	25.00	75.00	25.00	61.54	38.50
OaksMission	77.78	66.67	71.43	42.86	37.50	0.00	35.29	23.53	100.00	50.00	52.83	28.30
Osage	44.44	33.33	57.14	57.14	56.25	18.75	18.75	12.50	0.00	0.00	38.46	23.077
PoncaCity	66.67	44.44	85.71	42.86	37.50	0.00	58.82	17.65	100.00	75.00	60.38	24.53
Porum	77.78	55.56	71.43	57.14	43.75	0.00	29.41	11.77	75.00	25.00	50.94	22.64
Prague	66.67	55.56	28.57	0.00	43.75	0.00	0.00	0.00	75.00	50.00	33.96	13.21
RedOak	77.78	66.67	71.43	42.86	62.50	25.00	29.41	17.65	75.00	25.00	56.60	32.08
Reydon	77.78	66.67	42.86	14.29	50.00	6.25	23.53	11.77	75.00	75.00	47.17	24.53
RockyMtn	77.78	66.67	85.71	57.14	37.50	0.00	37.50	25.00	50.00	25.00	51.92	28.85
Roff	33.33	11.11	0.00	0.00	25.00	0.00	29.41	11.77	50.00	0.00	26.42	5.66
Sayre	77.78	66.67	85.71	71.43	87.50	56.25	47.06	29.41	100.00	75.00	73.59	52.83
SeeworthAca	88.89	77.78	71.43	57.14	62.50	25.00	29.41	17.65	75.00	25.00	58.49	35.85
Strother	77.78	66.67	28.57	28.57	31.25	6.25	0.00	0.00	50.00	0.00	30.19	16.98
ThomasFay	55.56	44.44	71.43	14.23	18.75	6.25	0.00	0.00	75.00	75.00	30.19	16.98
Tenkiller	77.78	66.67	85.71	57.14	37.50	6.25	37.50	25.00	75.00	25.00	53.85	30.77
Texhoma	77.78	22.22	42.86	28.57	37.50	0.00	6.67	0.00	75.00	25.00	39.22	9.80
Tonkawa	77.78	44.44	42.86	28.57	37.50	0.00	11.77	0.00	75.00	25.00	39.62	13.21
Varnum	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89
MarbleCity	77.78	44.44	42.86	28.57	37.50	0.00	12.50	0.00	75.00	25.00	40.39	13.46
Wilson, Okmulgee	88.89	77.78	71.43	71.43	62.50	25.00	47.06	23.53	75.00	25.00	64.15	39.62
Wagoner	66.67	55.56	71.43	57.14	50.00	31.25	17.65	0.00	75.00	50.00	47.17	30.19

School District	NEWP COMP	NEWP STRGTH	US COMP	US STRGTH	NS COMP	NS STRGTH	PEPA COMP	PEPA STRGTH	E COMP	E STRGTH	TOTAL COMP	TOTAL STRGTH
Millwood	88.89	66.67	85.71	57.14	100.00	87.50	64.71	41.18	50.00	25.00	81.13	60.38
Morris	88.89	55.56	85.71	57.14	100.00	81.25	64.71	41.18	75.00	50.00	83.02	58.49
Muskogee	44.44	22.22	28.57	14.29	93.75	62.50	29.41	5.88	75.00	25.00	54.72	28.30
Oakdale	77.78	55.56	100.00	71.43	68.75	43.75	50.00	25.00	100.00	75.00	71.15	46.15
Valliant	100.00	77.78	85.71	57.14	68.75	18.75	64.71	35.29	75.00	25.00	75.47	39.62
Tushka	77.78	44.44	71.43	57.14	62.50	37.50	41.18	29.41	100.00	50.00	62.26	39.62
Tupelo	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89
Tulsa	44.44	11.11	57.14	0.00	43.75	0.00	17.65	11.76	25.00	0.00	35.85	5.66
Stringtown	77.78	33.33	42.86	14.29	37.50	0.00	11.76	0.00	75.00	25.00	39.62	9.43
Rattan	88.89	22.22	42.86	0.00	43.75	0.00	0.00	0.00	50.00	0.00	37.74	3.77
Plainview	77.78	33.33	42.86	0.00	43.75	0.00	17.65	0.00	100.00	50.00	45.28	9.43
Optima	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	17.65	1.96
Vian	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89
Cheyenne	88.89	66.67	85.71	57.14	81.25	50.00	64.71	52.94	100.00	100.00	79.25	58.49
Darlington	22.22	22.22	28.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.69	3.85
Dewey	88.89	66.67	42.86	28.57	56.25	0.00	17.65	5.88	100.00	100.00	50.94	24.53
Dover	88.89	66.67	100.00	85.71	81.25	50.00	47.06	35.29	100.00	100.00	75.47	56.60
Eagletown	77.78	66.67	100.00	85.71	75.00	62.50	70.59	64.71	100.00	100.00	79.25	69.81
Gore	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89
Hartshorne	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89
Kinta	100.00	88.89	100.00	55.56	75.00	37.50	41.18	23.53	75.00	25.00	71.70	50.94
Norman	66.67	33.33	85.71	57.14	100.00	81.25	64.71	41.18	50.00	25.00	77.36	52.83
Atoka	77.78	44.44	71.43	42.86	43.75	0.00	35.29	23.53	100.00	50.00	54.72	24.53
Ninnekah	77.78	66.67	71.43	57.14	37.50	6.25	29.41	17.65	75.00	25.00	49.06	28.30
Flower Mound	88.89	77.78	100.00	28.57	50.00	18.75	33.33	20.00	75.00	75.00	60.78	35.29
Hydro-Eakly	88.89	77.78	71.43	57.14	43.75	0.00	35.29	23.53	75.00	25.00	54.72	30.19
Keyes	88.89	66.67	71.43	57.14	37.50	6.25	23.53	11.77	75.00	25.00	49.06	26.42

School District	NEWP COMP	NEWP STRGTH	US COMP	US STRGTH	NS COMP	NS STRGTH	PEPA COMP	PEPA STRGTH	E COMP	E STRGTH	TOTAL COMP	TOTAL STRGTH
Kiefer	88.89	66.67	71.43	57.14	37.50	6.25	35.29	23.53	75.00	25.00	52.83	30.19
Mounds	88.89	66.67	85.71	57.14	43.75	6.25	58.82	29.41	75.00	25.00	64.15	32.06
Ringwood	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89
Allen-Bowden	77.78	44.44	42.86	0.00	37.50	0.00	0.00	0.00	50.00	50.00	34.62	11.32
Glenpool	66.67	55.56	14.29	0.00	37.50	6.25	23.53	5.88	50.00	0.00	35.85	13.21
Bristow	88.89	66.67	100.00	57.14	56.25	25.00	58.82	52.94	75.00	75.00	69.81	49.06
Astec Charter	33.33	22.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.00	4.00
Peckham	11.11	11.11	57.14	14.29	68.75	62.5	31.25	18.75	50.00	25.00	44.23	30.77
PioneerPleasntVale	77.78	66.67	85.71	71.43	81.25	50.00	41.18	23.53	50.00	0.00	66.04	43.40
Ringling	88.89	77.78	85.71	85.71	62.50	25.00	41.18	29.41	75.00	25.00	64.15	43.40
Ripley	88.89	44.44	57.14	42.86	43.75	18.75	47.06	11.77	25.00	25.00	52.83	24.53
Rock Creek	66.67	11.11	14.29	0.00	6.25	0.00	11.77	5.88	100.00	50.00	26.42	7.55
Sapulpa	77.78	44.44	71.43	57.14	43.75	0.00	11.77	0.00	75.00	25.00	45.28	16.98
Sentinel	77.78	55.56	100.00	85.71	37.50	0.00	11.77	0.00	75.00	25.00	47.17	22.64
Sequoyah	88.89	77.78	71.43	71.43	62.50	6.25	23.53	11.77	75.00	25.00	56.60	30.19
Shady Grove	77.78	55.56	71.43	28.57	31.25	0.00	31.25	18.75	50.00	25.00	46.15	21.15
Shady Point	66.67	44.44	42.86	28.57	37.50	0.00	12.50	0.00	75.00	25.00	38.46	13.21
Shattuck	77.78	66.67	100.00	71.43	81.25	68.75	58.82	47.06	50.00	0.00	73.59	56.60
S. Coffeyville	88.89	77.78	85.71	71.43	62.50	37.50	52.94	35.29	100.00	100.00	69.81	52.83
Stonewall	77.78	44.44	42.86	28.57	37.50	0.00	11.77	0.00	75.00	25.00	39.62	13.21
Tannehill	55.56	33.33	14.29	14.29	6.25	6.25	31.25	18.75	50.00	0.00	26.92	15.39
Terral	44.44	22.22	28.57	14.29	25.00	0.00	12.50	0.00	75.00	25.00	28.85	7.69
Tipton	88.89	77.78	71.43	71.43	37.50	6.25	23.53	5.88	100.00	25.00	50.94	28.30
Wainwright	77.78	55.56	57.14	42.86	43.75	0.00	56.25	31.25	75.00	25.00	57.69	26.90
Watts	77.78	22.22	71.43	28.57	50.00	18.75	41.18	11.77	75.00	75.00	56.60	22.64
Wewoka	66.67	55.56	71.43	57.14	43.75	18.75	23.53	11.77	50.00	25.00	45.28	28.30
Wilson, Carter	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89

School District	NEWP COMP	NEWP STRGTH	US COMP	US STRGTH	NS COMP	NS STRGTH	PEPA COMP	PEPA STRGTH	E COMP	E STRGTH	TOTAL COMP	TOTAL STRGTH
Woodland	55.56	44.44	42.86	0.00	43.75	0.00	0.00	0.00	50.00	50.00	32.08	11.32
Wynnewood	77.78	44.44	42.86	28.57	37.50	0.00	11.77	0.00	75.00	25.00	39.62	13.21
Yarbrough	77.78	44.44	57.14	57.14	37.50	6.25	11.77	0.00	75.00	25.00	41.51	18.87
Riverside	22.22	22.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.85	3.85
Forest Grove	66.67	44.44	42.86	28.57	37.50	0.00	12.50	0.00	75.00	25.00	38.46	13.46
Salina	88.89	88.89	71.43	57.14	56.25	0.00	29.41	17.65	75.00	75.00	56.60	33.96
New Lima	66.67	55.56	85.71	71.43	68.75	6.25	35.29	29.41	75.00	50.00	60.38	33.96
Sulphur	77.78	55.56	71.43	71.43	43.75	0.00	35.29	23.53	75.00	25.00	52.83	28.30
Watonga	22.22	22.22	14.29	14.29	0.00	0.00	0.00	0.00	0.00	0.00	5.66	5.66
Woodward	77.78	44.44	71.43	57.14	31.25	0.00	17.65	5.88	75.00	25.00	43.40	18.87
ArapahoButler	77.78	44.44	57.14	28.57	37.50	0.00	11.77	0.00	75.00	25.00	41.51	13.21
Arnett	77.78	55.56	42.86	28.57	56.25	6.25	17.65	0.00	75.00	25.00	47.17	16.98
Avant	88.89	66.67	85.71	71.43	62.50	6.25	25.00	0.00	75.00	25.00	59.62	25.00
Caddo	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89
Canadian	88.89	77.78	71.43	57.14	62.50	37.50	47.06	29.41	75.00	25.00	64.15	43.40
Chandler	77.78	44.44	57.14	28.57	37.50	0.00	17.65	17.65	50.00	25.00	41.51	18.87
Coalgate	77.78	44.44	57.14	42.86	37.50	0.00	47.06	11.32	75.00	25.00	52.83	26.42
Colbert	88.89	66.67	71.43	42.86	62.50	37.50	47.06	29.41	75.00	25.00	64.15	39.62
CrookedOak	55.56	0.00	71.43	42.86	6.25	0.00	5.88	0.00	0.00	0.00	22.64	5.66
Crutcho	66.67	55.56	85.71	71.43	43.75	0.00	31.25	6.25	100.00	75.00	53.85	26.92
DeerCrkLamnt	66.67	44.44	42.86	28.57	37.50	0.00	11.77	0.00	75.00	25.00	37.74	13.21
Earlsboro	88.89	77.78	100.00	85.71	68.75	43.75	52.94	41.18	75.00	50.00	71.70	54.72
Fairland	100.00	88.89	57.14	42.86	43.75	0.00	29.41	5.88	50.00	0.00	50.94	22.64
Fargo	77.78	77.78	85.71	57.14	50.00	6.25	23.53	23.53	100.00	100.00	54.72	37.74
Felt	77.78	55.56	57.14	57.14	0.00	0.00	23.53	11.77	75.00	25.00	33.96	22.64
Fletcher	22.22	22.22	28.57	14.26	31.25	0.00	0.00	0.00	0.00	0.00	16.98	5.66
Friend	88.89	55.56	42.86	0.00	37.50	0.00	0.00	0.00	75.00	25.00	36.54	11.54

School District	NEWP COMP	NEWP STRGTH	US COMP	US STRGTH	NS COMP	NS STRGTH	PEPA COMP	PEPA STRGTH	E COMP	E STRGTH	TOTAL COMP	TOTAL STRGTH
Gage	66.67	33.33	0.00	0.00	0.00	0.00	23.53	23.53	0.00	0.00	18.87	13.21
Gans	66.67	44.44	42.86	28.57	37.50	0.00	11.77	0.00	75.00	25.00	37.74	13.21
Glover	88.89	77.78	57.14	57.14	43.75	0.00	31.25	18.75	75.00	25.00	51.92	28.85
GrandView	66.67	44.44	42.86	28.57	37.50	0.00	12.50	0.00	75.00	25.00	38.46	13.46
Grove, Pott Co	44.44	22.22	42.86	28.57	37.50	31.25	41.18	23.53	75.00	0.00	43.40	24.53
HammnRogerMills	66.67	44.44	42.86	28.57	37.50	0.00	11.77	0.00	75.00	25.00	37.74	13.21
Hominy	100.00	100.00	100.00	85.71	87.50	62.50	76.47	52.94	100.00	100.00	88.68	71.70
Indiahoma	77.78	55.56	42.86	0.00	68.75	6.25	29.41	0.00	100.00	25.00	56.60	13.21
Albion	22.22	22.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.85	3.85
Oklahoma City	88.89	88.89	57.14	28.57	56.25	6.25	70.59	29.41	100.00	75.00	69.81	35.85
Broken Bow	77.78	55.56	85.71	57.14	37.50	0.00	29.41	17.65	75.00	25.00	50.94	24.53
Bennington	77.78	22.22	28.57	0.00	37.50	0.00	11.76	0.00	75.00	25.00	37.74	5.66
Caney	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89
Cottonwood Coalgate	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	17.31	1.92
Dickson	77.78	55.56	28.57	28.57	43.75	6.25	41.18	23.53	100.00	50.00	50.94	26.42
Durant	66.67	33.33	42.86	14.29	37.50	0.00	11.76	0.00	75.00	25.00	37.74	9.43
Elgin	66.67	33.33	42.86	14.29	37.50	0.00	11.76	0.00	75.00	25.00	37.74	9.43
Guthrie	66.67	44.44	57.14	14.29	37.50	0.00	17.65	5.88	75.00	25.00	41.51	13.21
Haworth	88.89	66.67	57.14	0.00	43.75	0.00	35.29	17.65	75.00	25.00	52.83	18.87
Hilldale	77.78	66.67	71.43	71.43	37.50	0.00	23.53	17.65	75.00	50.00	47.17	28.30
Hugo	100.00	100.00	100.00	57.14	62.50	37.50	35.29	23.53	100.00	50.00	67.92	47.17
Lawton	66.67	55.56	100.00	14.29	37.50	0.00	0.00	0.00	75.00	50.00	41.51	13.21
Achille	22.22	22.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.77	3.77
Afton	66.67	55.56	28.57	0.00	37.50	0.00	5.88	0.00	100.00	50.00	35.85	13.21
Anderson	55.56	44.44	28.57	0.00	18.75	0.00	6.67	0.00	75.00	25.00	27.45	9.80
Banner	11.11	11.11	28.57	0.00	12.50	0.00	0.00	0.00	0.00	0.00	9.62	1.92

School District	NEWP COMP	NEWP STRGTH	US COMP	US STRGTH	NS COMP	NS STRGTH	PEPA COMP	PEPA STRGTH	E COMP	E STRGTH	TOTAL COMP	TOTAL STRGTH
Blackwell	88.89	77.78	71.43	57.14	37.50	5.88	64.71	35.29	100.00	25.00	64.15	35.85
Bray Doyle	33.33	22.22	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	13.21	3.77
Canton	66.67	44.44	28.57	0.00	31.25	0.00	5.88	0.00	75.00	25.00	32.08	9.43
Cave Springs	77.78	44.44	71.43	42.86	37.50	0.00	29.41	0.00	100.00	50.00	50.94	16.98
Central High	77.78	44.44	57.14	57.14	37.50	25.00	17.65	11.77	50.00	25.00	41.51	28.30
Chattanooga	66.67	33.33	28.57	0.00	31.25	0.00	11.77	0.00	100.00	50.00	35.85	9.43
Justice	100.00	88.89	100.00	85.71	81.25	56.25	75.00	37.50	100.00	100.00	86.54	63.46
Locust Grove	77.78	55.56	71.43	71.43	43.75	0.00	41.18	17.65	75.00	25.00	54.72	26.42
Lindsay	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89
Maud	44.44	11.11	28.57	14.29	31.25	0.00	0.00	0.00	50.00	0.00	24.53	3.77
McCurtain	55.56	33.33	57.14	42.86	75.00	62.50	47.06	5.88	75.00	25.00	60.38	33.96
Kremlin-Hillsdale	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89
Moffett	66.67	44.44	42.86	28.57	43.75	0.00	12.50	0.00	75.00	25.00	40.39	13.46
Moyers	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89
MtnView-Gotebo	66.67	44.44	42.86	28.57	37.50	0.00	11.77	0.00	75.00	25.00	37.74	13.21
Ada	66.67	44.44	42.86	28.57	37.50	0.00	11.77	0.00	75.00	25.00	37.74	13.21
Allen	66.67	44.44	42.86	0.00	50.00	0.00	0.00	0.00	75.00	25.00	37.74	9.43
Calera	44.44	0.00	42.86	28.57	31.25	0.00	41.18	5.88	50.00	0.00	39.62	5.66
Carnegie	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89
Coweta	66.67	55.56	57.14	42.86	37.50	0.00	11.77	0.00	75.00	25.00	39.62	16.98
Dewar	88.89	33.33	100.00	71.43	31.25	0.00	64.71	23.53	100.00	100.00	66.04	33.96
Dibble	55.56	11.11	0.00	0.00	50.00	0.00	0.00	0.00	50.00	0.00	28.30	1.89
Erick	66.67	44.44	42.86	28.57	37.50	0.00	11.77	0.00	75.00	25.00	37.74	13.21
Haywood	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	17.31	1.92
LeFlore	66.67	44.44	42.86	0.00	50.00	0.00	0.00	0.00	75.00	25.00	37.74	9.43
Lomega	100.00	88.89	85.71	57.14	100.00	87.50	70.59	64.71	100.00	75.00	88.68	75.47

School District	NEWP COMP	NEWP STRGTH	US COMP	US STRGTH	NS COMP	NS STRGTH	PEPA COMP	PEPA STRGTH	E COMP	E STRGTH	TOTAL COMP	TOTAL STRGTH
Lowrey	66.67	55.56	71.43	71.43	37.50	0.00	31.25	18.75	100.00	50.00	50.00	28.85
Maple	77.78	55.56	100.00	28.57	56.25	0.00	18.75	0.00	75.00	0.00	55.77	13.46
McLoud	77.78	66.67	57.14	42.86	43.75	0.00	23.53	11.77	75.00	25.00	47.17	22.64
Miami	66.67	66.67	71.43	71.43	37.50	0.00	35.29	23.53	100.00	50.00	50.94	32.08
Moseley	55.56	44.44	100.00	85.71	68.75	62.50	43.75	37.50	100.00	100.00	65.39	57.69
Muldrow	88.89	88.89	100.00	71.43	68.75	6.25	11.77	0.00	100.00	100.00	60.38	33.96
Newcastle	77.78	44.44	71.43	71.43	31.25	0.00	23.53	11.77	75.00	25.00	45.28	22.64
Newkirk	66.67	55.56	100.00	85.71	68.75	50.00	64.71	35.29	100.00	100.00	73.59	54.72
Nowata	88.89	77.78	57.14	42.86	50.00	0.00	23.53	11.77	75.00	25.00	50.94	24.53
Pittsburg	66.67	44.44	42.86	28.57	37.50	0.00	17.65	0.00	75.00	25.00	39.62	13.21
Pretty Water	77.78	55.56	71.43	71.43	56.25	37.50	37.50	18.75	75.00	25.00	57.69	38.46
Pryor	66.67	44.44	57.14	57.14	50.00	6.25	0.00	0.00	100.00	50.00	41.51	20.75
Purcell	66.67	44.44	85.71	57.14	56.25	37.50	52.94	29.41	100.00	100.00	64.15	43.30
Leach	100.00	55.56	100.00	85.71	93.75	56.25	68.75	62.50	100.00	100.00	90.39	65.39
Caney Valley	33.33	11.11	0.00	0.00	25.00	0.00	0.00	0.00	50.00	0.00	16.98	1.89
Geary	77.78	44.44	71.43	71.43	37.50	0.00	35.29	17.65	75.00	25.00	50.94	24.53
Geronimo	22.22	22.22	28.57	14.29	0.00	0.00	0.00	0.00	0.00	0.00	7.55	5.66
Lone Star	77.78	66.67	71.43	71.43	43.75	0.00	31.25	12.50	75.00	25.00	51.92	26.92
Grove, DE Co	66.67	55.56	85.71	71.43	37.50	0.00	41.18	23.53	75.00	25.00	52.83	28.30

Appendix H
Template Policies
OSDE Model Policy (2006)

HEALTHY SCHOOL NUTRITION ENVIRONMENTS SCHOOL WELLNESS POLICY MODEL

Oklahoma State Department of Education Child Nutrition Programs
January 2006

SCHOOL WELLNESS POLICY GUIDANCE

This model wellness policy provides sample language for schools to use in developing their own local policy. It is based on existing USDA guidance as of January 1, 2006. The format of the model wellness policy was developed by the Mississippi Office of Healthy Schools Child Nutrition Programs. The model wellness policy has been adapted for use in Oklahoma schools.

The model contains both minimum policy statements and optional policy statements. ***The minimum statements are federal and state legislation that should be included in any school wellness policy adopted by Oklahoma schools.*** Schools are encouraged to review the optional policy statements, based on the best practices from other schools, and to adopt those that meet the goals of their communities. Policy statements need to be developed that address the four basic components of a wellness policy:

1. Nutrition guidelines/standards
2. Nutritional education goals
3. Physical activity goals
4. Other school-based activities

The following model wellness policy is not intended for adoption in its entirety by schools. It is intended for schools to use* as a tool *in drafting their own policies. With the exception of the minimum policy statements, schools may choose to alter this model, based on community input, to address* local *concerns and meet* local *needs.

MODEL SCHOOL WELLNESS POLICY

Purpose:

The link between nutrition, physical activity, and learning is well documented. Healthy eating and activity patterns are essential for students to achieve their full academic potential, full physical and mental growth, and lifelong health and well-being. Healthy eating and physical activity, essential for a healthy weight, are also linked to reduced risk for many chronic diseases. Schools have a responsibility to help students learn, establish, and maintain lifelong healthy eating and activity patterns. Well-planned and effectively implemented school nutrition and fitness programs have been shown to enhance students' overall health, as well as their behavior and academic achievement in school. Staff wellness also is an integral part of a healthy school environment since school staff can be daily role models for healthy behaviors.

Overall Goal:

All students in _____ School District shall possess the knowledge and skills necessary to make nutritious food choices and enjoyable physical activity choices for a lifetime. All staff in _____ School District are encouraged to model healthful eating and physical activity as a valuable part of daily life.

To meet this goal, the _____ School District adopts this school wellness policy with the following commitments to nutrition, nutrition education, physical activity, and other school-based activities that support student and staff wellness.

NUTRITION GUIDELINES/STANDARDS

School Meals

Minimum Policy Statements:

• Per USDA Regulations §210.10 and §220.8, school lunches and breakfasts will meet menu-planning system guidelines as required by USDA.

• Per USDA Regulation §210.10, school lunches will provide 1/3 of the recommended dietary allowances (RDA) for calories, protein, calcium, iron, vitamin A, and vitamin C as required by USDA.

• Per USDA Regulation §220.8, school breakfasts will provide 1/4 of the RDA for calories, protein, calcium, iron, vitamin A, and vitamin C as required by USDA.

• Per USDA Regulations §210.10 and §220.8, the total calories from fat in school meals will be limited to 30 percent when averaged over one week.

• Per USDA Regulations §210.10 and §220.8, the total calories from saturated fat in school meals will be less than 10 percent when averaged over one week.

• Per USDA Regulations §210.10 and §220.8, school meals will meet the Dietary Guidelines for Americans.

Optional Policy Statements:

- Qualifying after-school programs will participate in USDA's After-School Snack

- Qualifying school sites will participate in USDA's Summer Food Service Program.

- In addition to following USDA menu-planning system guidelines, school lunch menus will be planned according to the silver or gold criteria specified in the ***HealthierUS School Challenge***.

- Healthy food preparation techniques will be implemented. Food items will not be fried.

- Deep-fat fried potato products served as part of a reimbursable meal or as an á la carte item will not exceed three ounces per serving, may not be offered more than once a week, and students may only purchase one serving at a time.

- Fruits and/or vegetables will be offered daily at all points of service. Fruits and vegetables should be fresh whenever possible. Frozen and canned fruits should be packed in natural juice, water, or light syrup.

- Schools serving chips will use reduced-fat or baked varieties, rather than the traditional varieties, whenever possible.

- Beverages such as tea, lemonade, and fruit drinks containing less than 50 percent fruit juice will not be offered to students.

- The most nutritious food items offered will be placed on the serving line(s) first to encourage students to make healthier selections.

- Students will be offered a variety of skim and lowfat milk, meat and beans, fruits and vegetables, and whole grains on a daily basis.

- A nutrient analysis of school meals offered to students will be made available upon request.

- School staff will support and encourage student participation in the USDA school meals programs.

- School sites will be encouraged to participate in Farm-to-School by purchasing fresh fruits and vegetables from local farmers when available.

Other Food Items Sold on School Campuses

Minimum Policy Statements:

• Per USDA Regulation §210, Appendix B, foods of minimal nutritional value (FMNV) are prohibited from being sold or served during student meal services in the food service area where USDA reimbursable meals are served or eaten.
• Per the Child Nutrition and WIC Reauthorization Act of 2004, beverage contracts will not restrict the sale of fluid milk products at any time during the school day or at any place on the school premises.
• Per Oklahoma Senate Bill 265 (effective school year 2007-2008), students in elementary schools will not have access to FMNV except on special occasions.
• Per Oklahoma Senate Bill 265 (effective school year 2007-2008), students in middle and junior high schools will not have access to FMNV except after school, at events which take place in the evening, and on special occasions.
• Per Oklahoma Senate Bill 265 (effective school year 2007-2008), diet soda, an FMNV, will be available for sale at the junior high only in vending areas outside of the cafeteria.
• Per Oklahoma Senate Bill 265 (effective school year 2007-2008), healthy food options will be provided at the high school and priced lower than FMNV in order to encourage students and staff to make healthier food choices.

Optional Policy Statements:

- Fried food items will not be available for sale as á la carte food items.

- Nutrient-rich food items will be available for sale at all places where food and beverages are sold on school campuses. This includes the cafeteria, vending machines, school stores, and concession stands. The district will follow the recommended food items specified in ***Healthy Snack Choices*** provided by the OSDE.

- Snack food items available for sale will contain less than 30 percent or 7 grams of fat per single serving as stated on the Nutrition Facts label (exception: nut and seed mixes).

- Snack food items available for sale will contain less than 10 percent or 2 grams of saturated fat per single serving as stated on the Nutrition Facts label.

- Snack food items available for sale will contain no more than 35 percent sugar by weight or 15 grams per single serving as stated on the Nutrition Facts label (exceptions are fresh and dried fruits).

- Snack food items available for sale will contain less than 480 milligrams of sodium per single serving as stated on the Nutrition Facts label.

- High energy drinks with elevated levels of caffeine will not be available for sale anywhere on school campus.

NUTRITION EDUCATION

Minimum Policy Statements:

• Per USDA Regulations §210.12 and §227, nutrition education is offered in the school cafeteria as well as the classroom.

• Per Oklahoma Senate Bill 1627, the Healthy and Fit School Advisory Committee at each school site will study and make recommendations regarding health education, nutrition, and health services.

Optional Policy Statements:

- MyPyramid nutrition education resources will be used in the cafeteria and classroom.

- The Oklahoma Ag in the Classroom curriculum will be implemented in Grades K-6.

- Nutrition education is integrated into the core curriculum, including math, science, and language arts.

- All schools will apply with USDA to participate as a Team Nutrition school. Each school will conduct nutrition education activities and promotions that involve students, parents, and the community <www.teamnutrition.usda.gov>.

- Students, parents, and the school staff will participate in an annual school health fair.

- Family/parent nutrition education opportunities will be provided.

- Advertising and other materials that promote FMNV will be eliminated on all school campuses.

- Students will receive consistent nutritional messages throughout the school, classroom, cafeteria, and school events.

- ***The Power of Choice*** nutrition education curriculum will be implemented in the after-school program.

- Age appropriate USDA Team Nutrition resources will be utilized to teach nutrition education to students.

- School staff will work with local county extension educators to incorporate nutrition education activities in school.

- School staff will promote healthful eating and healthy lifestyles to students and parents.

PHYSICAL ACTIVITY

Minimum Policy Statements:

• Per Oklahoma Senate Bill 1627, the Healthy and Fit School Advisory Committee at each school site will study and make recommendations regarding physical education and physical activity.

• Per Oklahoma Senate Bill 312 (effective school year 2006-2007), students in Grades K through 5 will participate in 60 minutes of physical activity each week.

Optional Policy Statements:

- Students will participate in an annual health-related fitness test (e.g., Fitness Gram, President's Challenge to Physical Fitness, etc.).

- School sites will establish or enhance physical activity opportunities for students, staff, and parents (fitness challenges, family fitness nights, fun walks and runs, bike events).

- Elementary school sites will provide 20 minutes of daily recess that promotes physical activity beyond what is provided through physical education classes.

- Active transportation to and from school will be encouraged by assessing safest routes for students to walk or bike to school and by installing bike racks at school buildings.

- Students will be encouraged to participate in voluntary before- and after-school physical activity programs such as intramurals, clubs, and, at the secondary level, interscholastic athletics.

- Students and school staff will collaborate with local recreational departments and youth fitness programs to promote participation in lifelong physical activities.

- Students will not be denied participation in recess or other physical activity as a form of discipline.

- Recess or other physical activity time will not be canceled for instructional make-up time.

- Staff will serve as physical activity role models for students.

- All playgrounds will meet the recommended safety standards for design, installation, and maintenance.

- School sites will provide adequate equipment (e.g., balls, rackets, and other manipulatives) for every student to be active.

SCHOOL-BASED ACTIVITIES

Minimum Policy Statements:

• Per Oklahoma Senate Bill 1627, each school site will establish a Healthy and Fit School Advisory Committee that meets and makes recommendations to the school principal. The school principal shall give consideration to recommendations made by the Healthy and Fit School Advisory Committee.
• Per the school district's Child Nutrition Programs Agreement, school meals may not be used as a reward or punishment.
• Per USDA Regulations §210.12 and §227, students and parents will be involved in the NSLP. Parent and student involvement will include menu-planning suggestions, cafeteria enhancement, program promotion, and other related student-community support activities.

Optional Policy Statements:

- Students will be provided with a clean, safe, enjoyable meal environment.

- Students will be provided with an adequate amount of time to eat breakfast and lunch. A minimum of 15 minutes will be provided at breakfast and 20 minutes at lunch (after students receive their trays).

- Recess before lunch will be implemented at all elementary schools in order to increase food consumption and nutrient intake, decrease plate waste, and improve cafeteria and classroom behavior.

- The sale of candy as a fundraiser will be prohibited.

- All fundraising efforts and classroom parties will be supportive of healthy eating.

- Classroom teachers and administrators will not use candy or sweets as a reward.

- Elementary schools will be encouraged to participate in the ***HealthierUS School Challenge.***

- Students will be involved in planning for a healthy school environment. Students will be asked for input and feedback through the use of student surveys, student committees, and school clubs.

This School Wellness Policy adopted by the Board of the _____ at the regularly scheduled meeting on this, the _____ day of _____ in the year _____.

Signature
SFA Official Clerk of the Board

Appendix I
Template Policies
Five Wellness Elements (n.d.)

LOCAL WELLNESS

[redacted] Public School District is committed to the philosophy that healthy children perform better in school and are therefore more likely than unhealthy children to successfully complete their education. Additionally, healthy staff members can more effectively perform their assigned duties and serve as role models of appropriate wellness behaviors for the students in the District.

Reflecting this philosophy, the following Local Wellness Policy, in compliance with the requirements of Public Law 108-265, shall serve as a framework for the students, staff and patrons of the district illustrative of a sound commitment to local health and fitness:

1. It is the goal of the [redacted] Public School District to provide nutrition education, physical activity and other school-based activities designed to promote student wellness. Such activities shall be undertaken in a manner that the Board of Education determines is most appropriate for the students of the District.

2. Guidelines selected by the District for all foods available on campus during the school day shall have the objective of promoting student health and reducing childhood obesity.

3. 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 sections 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. The District shall measure implementation of the Wellness Policy. At least one person within the District shall be responsible for such measurement, ensuring that the District meets the guidelines and objectives of the Wellness Policy.

5. Wellness is an ongoing and dynamic process. As the Wellness Policy is developed and implemented, the District shall involve parents, students, representatives of the school food authority, the school board, school administrators and the public in this process.

References: Child Nutrition and WIC Reauthorization Act of 2004, Public Law 108-265, Section 204.

Appendix J
Template Policies
Wellness Goals (2011)

_____Public School Policy & Procedures

WELLNESS POLICY

Purpose: The link between nutrition, physical activity, and learning is well documented. Healthy eating and activity patterns are essential for students to achieve their full academic potential, full physical and mental growth, lifelong health and well-being. Healthy eating and physical activity, essential for a healthy weight, are also linked to reduced risk for many chronic diseases. Schools have a responsibility to help students learn, establish, and maintain lifelong healthy eating and activity patterns. Well-planned and effectively implemented school nutrition and fitness programs have been shown to enhance students' overall health, as well as their behavior and academic achievement in school. Staff wellness also is an integral part of a healthy school environment since school staff can be daily role models for healthy behaviors.

Goal: All students in _____ School District shall possess the knowledge and skills necessary to make nutritious food choices and enjoyable physical activity choices for a lifetime. All staff members in _____ School District are encouraged to model healthful eating and physical activity as a valuable part of daily life. To meet this goal, the _____ School District adopts this school wellness policy with the following commitments to nutrition, nutrition education, physical activity, and other school-based activities that support student and staff wellness.

Board Approved: _____
Signature of Board President Date

VITA

Jessica Lynn Berg

Candidate for the Degree of

Master of Science

Thesis: THE QUALITY OF SCHOOL DISTRICT WELLNESS POLICIES IN OKLAHOMA

Major Field: Nutritional Sciences

Biographical:

Education:

Completed the requirements for the Master of Science in Nutritional Sciences at Oklahoma State University, Stillwater, Oklahoma in May, 2015.

Completed the requirements for the Bachelor of Science in Dietetics at the University of Vermont, Burlington, Vermont in 2009.

Experience: Graduate Research Assistant for Dr. Kevin Fink
Graduate Teaching Assistant for Dr. Nancy Betts

Professional Memberships: Graduate Students in Nutritional Sciences
Academy of Nutrition and Dietetics
Oklahoma Association for Health, Physical Education, Recreation and Dance