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Obesity: Challenges and Benefits of Implementing Local Wellness Policies in Georgia Public Schools

Michele Spurgeon Hartzell

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OBESITY: CHALLENGES AND BENEFITS OF IMPLEMENTING LOCAL
WELLNESS POLICIES IN GEORGIA PUBLIC SCHOOLS

by

MICHELE SPURGEON HARTZELL

(Under the Direction of Charles A. Reavis)

ABSTRACT

Childhood obesity has become an epidemic that can no longer be ignored. Obesity issues are being addressed through House Bill 108-265, under the provisions provided in Public Law 108-265, Section 2507; which requires school districts to develop local wellness policies. Local wellness policies include goals for nutrition education and physical activity, nutrition guidelines with the objectives of promoting student health and promoting the reduction of childhood obesity, meal reimbursement guidelines, a plan for measuring implementation, and input of multiple stakeholders. Although there have been many studies on the causes and costs of childhood obesity, less is known regarding the potential challenges to and benefits for implementing local wellness policies. The purpose of this study was to identify the challenges to and potential benefits for implementing local wellness policies in Georgia Public Schools.

Data from this study were collected from nine in-depth interviews in three different school districts throughout the State of Georgia. The results of this study for potential benefits include an increase in nutritional offerings during school lunches, increased awareness on health related topics, increased health education and promotion, potential long-term health benefits, healthier more alert students including higher self-esteem, reduced stress, increased attendance and academic achievement; and an increase

in physical activity including more recreation and physical education classes for students and staff.

The results of this study for challenges to implementing local wellness policy include lack of time in parent and teacher schedules, teacher stress, vending sponsorships and profits, lack of training, lack of state and federal financial support, the availability of convenience and fast foods, costs associated with healthier foods, increased academic requirements and state mandates, and family and cultural values towards nutrition and physical activity.

All district local wellness policies included the minimum necessary requirements under federal law; however, a disconnection was evident between implementation by district administrators and implementation in the schools. Consequently, although all districts had a written policy, there was a lack a plan for implementation at all levels. Based on this study, there is a need to help districts develop creative ways to incorporate the local wellness policy requirements into the instructional day, provide alternative ways to seek loss of vending profits, and lobby legislators to provide financial and technical support. Finally, there needs to be a clear understanding of the responsibilities of each stakeholder, a need to specifically identify the objectives and intended outcomes of local wellness policy implementation, and a plan for evaluation.

INDEX WORDS: Obesity, Wellness policies, Public schools, Georgia, Body mass index, Childhood obesity, Contributors to obesity, Overweight, Public health

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Electronic Version Approved:
May 2008

DEDICATION

This paper is dedicated my parents, Ray and Marge, and in memory of my mother, Margaret Spurgeon (1932-2005). Thank you for always supporting me! Mom, I know you are cheering me on!

To my husband, Shawn, it has been a long journey get to this point and you have been with me every step of the way. Thank you for being by my side and for making me laugh and “keeping things light,” but most of all for thank you for your unconditional love.

To my precious boys, “you are the best Austin and Westin in the whole, wide world,” you are my joy and I love you bunches; and to my stepson, Brandon, I love you “all the way up to the moon.”

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TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	7
LIST OF TABLES	14
LIST OF FIGURES	15
CHAPTER	
1 INTRODUCTION	16
Background of Study	16
<i>Societal Costs</i>	16
Childhood Overweight/Obesity	17
<i>Physical/Social/Emotional Impact</i>	17
Contributors to Obesity	17
<i>Fast Food</i>	17
<i>Decreased Physical Activity/Increased Television Viewing</i>	18
<i>Advertising</i>	19
Legislation	19
<i>Local Wellness Policies</i>	21
Statement of the Problem	21
Research Questions	22
<i>Overarching Question</i>	22
<i>Sub-questions</i>	22
Theoretical Framework	23
Significance of the Study	24

Research Procedures.....	24
<i>Research Design</i>	24
<i>Sampling</i>	24
<i>Participants</i>	26
<i>Instrumentation</i>	26
<i>Data Collection</i>	27
<i>Data Analysis</i>	27
<i>Limitations</i>	28
<i>Delimitations</i>	28
Definition of Terms	29
Summary	30
2 REVIEW OF LITERATURE	32
Early Role of Public Health.....	33
<i>19th Century Schools</i>	33
<i>National School Lunch Act</i>	33
<i>Height and Weight Charts</i>	35
<i>President’s Council on Physical Fitness and Sports</i>	35
Legislation	37
Obesity.....	39
<i>Societal Costs</i>	42
Impact of Childhood Obesity	42
<i>Physical/Social/Emotional</i>	42
<i>Medical Problems</i>	43

Contributors to Obesity	43
<i>Home Environment</i>	43
<i>Environmental</i>	44
<i>Technology</i>	45
<i>Advertising</i>	46
<i>Fast Food</i>	46
Local Wellness Policies.....	48
<i>Background of Policy</i>	48
<i>Nutrition Education</i>	49
<i>Physical Activity</i>	49
<i>Engaging Stakeholders</i>	50
<i>Implementation</i>	50
<i>Plan for Measurement</i>	53
Summary	54
3 DESIGN OF STUDY	56
Introduction	56
Research Questions	56
Research Procedures.....	56
<i>Research Design</i>	56
<i>Subjectivities</i>	57
<i>Interview</i>	58
<i>Sampling</i>	59
Participants	60

		11
	Instrumentation.....	60
	Data Collection.....	61
	Data Analysis	64
	Summary	65
4	REPORT OF DATA AND DATA ANALYSIS	67
	Introduction	67
	Research Questions	68
	Research Design.....	68
	<i>Data Collection</i>	69
	Respondents.....	71
	<i>Demographic Profile of Respondents</i>	71
	Findings	71
	<i>Introduction</i>	71
	Results	73
	<i>Local Wellness Policies</i>	74
	<i>Researcher Question One</i>	77
	<i>Researcher Question Two</i>	78
	<i>Researcher Question Three</i>	81
	<i>Researcher Question Four</i>	85
	Summary	87
5	SUMMARY, CONCLUSIONS, AND IMPLICATIONS	90
	Summary	90
	Analysis of Research Findings.....	93

	12
Discussion of Research Findings	94
<i>Researcher Question One</i>	95
<i>Researcher Question Two</i>	96
<i>Researcher Question Three</i>	97
<i>Researcher Question Four</i>	101
Conclusions	103
<i>Implications</i>	104
<i>Recommendations</i>	105
<i>Dissemination</i>	106
Concluding Thoughts	107
REFERENCES	109
APPENDICES	
A MCLEROY PERMISSION LETTER, SOCIO-ECOLOGICAL MODEL ...	114
B WELLNESS POLICY FUNDAMENTALS CHECKLIST.....	116
C ACTION FOR HEALTHY KIDS PERMISSION LETTER.....	118
D TRANSCRIPTION CODE KEY	119
E INTERVIEW QUESTIONS	121
F INFORMED CONSENT	124
G DRAFT INTERVIEW QUESTIONS.....	126
H TABLE 8 - CATEGORIZED RESPONSES TO KEY STAKEHOLDERS, DISTRICT 1	129
I TABLE 9 - CATEGORIZED RESPONSES TO KEY STAKEHOLDERS, DISTRICT 2	130

J	TABLE 10 - CATEGORIZED RESPONSES TO KEY STAKEHOLDERS, DISTRICT 3	131
K	TABLE 11 - CATEGORIZED RESPONSES TO EVALUATION PROCESS, DISTRICT 1	132
L	TABLE 12 - CATEGORIZED RESPONSES TO EVALUATION PROCESS, DISTRICT 2	133
M	TABLE 13 - CATEGORIZED RESPONSES TO EVALUATION PROCESS, DISTRICT 3	134
N	TABLE 14 - CATEGORIZED RESPONSES TO CHALLENGES, DISTRICT 1	135
O	TABLE 15 - CATEGORIZED RESPONSES TO CHALLENGES, DISTRICT 2	136
P	TABLE 16 - CATEGORIZED RESPONSES TO CHALLENGES, DISTRICT 3	137
Q	TABLE 17 - CATEGORIZED RESPONSES TO BENEFITS, DISTRICT 1	138
R	TABLE 18 - CATEGORIZED RESPONSES TO BENEFITS, DISTRICT 2.....	139
S	TABLE 19 - CATEGORIZED RESPONSES TO BENEFITS, DISTRICT 3.....	140
T	FOODS OF MINIMAL NUTRITIONAL VALUE.....	141
U	CATEGORIZED RESPONSES BY ALL DISTRICTS.....	142
V	IRB APPROVAL LETTER.....	144

LIST OF TABLES

	Page
Table 1: Weight Charts for Women.....	36
Table 2: Weight Charts for Men	37
Table 3: Obesity Trends in the State of Georgia by Year	41
Table 4: Prevalence of Overweight Among Children and Adolescents ages 6-19 Years, for Selected Years 1963-65 through 1999-2002.....	41
Table 5: Fast Food Changes.....	47
Table 6: Common Implementation Problems by Category	51
Table 7: Wellness Policy Data.....	76

LIST OF FIGURES

	Page
Figure 1: Theoretical Framework	23
Figure 2: Obesity Trends Among U.S. Adults.....	40

CHAPTER 1

INTRODUCTION

Background of Study

Childhood obesity in the 21st century has become not only a concern for the health professionals, but also a crisis around the world that has raised the attention of educators, media, and policy makers alike (Moyayeri, Bidad, Aghmohammadi, Rabbani, Anari, Nazemi, Gholami, Zadhoush, Hatmi, 2006). Obesity is not only an epidemic in the United States, but it is also prevalent according to longitudinal studies in many other countries. According to Dietz (2002), obesity warrants policy as well as environmental changes and society cannot even begin to fathom the potential intrinsic and extrinsic costs (p. 273).

Data that obesity is a significant and increasing problem is accumulating. According to the National Health & Nutrition Examination Survey, between 1980 and 2004, obesity among children age 6-11 increased from 6.5% to 18.8% and among children age 12-19 increased from 5.0% to 17.4% (Centers for Disease Control, 2006). In the State of Georgia, obesity rates have gone from twelve percent (12%) in 1985, to over twenty-seven percent (27%) in 2006 (Centers for Disease Control, 2006).

Societal Costs

Paralleling these statistics, the Centers for Disease Control estimate that obesity accounts for approximately \$22.2 billion of the total cost of heart disease (19%); more than doubles the chance of high blood pressure; and, increases the risk of diabetes, colon and breast cancer, coronary heart disease, osteoarthritis, high cholesterol, and gall bladder disease (National Center for Health Statistics, 2007).

Childhood Overweight/Obesity

Physical/Social/Emotional Impact

A number of problems are associated with childhood obesity. Obesity has a negative impact on children's emotional and social well-being and increases depression (Sjoberg, Nilsson, & Leppert, 2005). Overweight and obese children tend to have lower self-esteem and often are the victims of bullying at their schools (Gunturu & Ten, 2007). Obesity in children has also been linked to increased asthma, early puberty, eating disorders, skin disorders, and type II diabetes (Mayo Clinic, 2006). Type II diabetes accounts for "half the cases of newly diagnosed diabetes in children ages 10-21"; and, parallels the increased cases of childhood obesity (Perkin, p.67, 2004).

Childhood obesity is often a precursor which could lead to adulthood overweight and obesity and thus an increase in morbidity (Jansen, Katzmarzyk, Srinivasan, Chen, Malina, Bouchard, Berenson, 2005). According to Rowlett (2006), children that have two obese parents have a 70% chance of becoming obese. This number decreases to 50% if one parent is obese and to less than 10% if neither parent is obese (p. 655). Although there are genealogical factors, eating habits and lifestyles are also contributing factors.

Contributors to Obesity

Fast Food

For years, experts have identified various issues or concerns that have contributed to the obesity epidemic in the United States today. These issues, including the time spent away from home and the convenience of fast food, have had a major impact on the daily caloric intake. Between 1970 and 1990 approximately twenty-five percent (25%) of total food costs were spent at restaurants; by the 1990's over forty percent (40%) of total food

costs were spent eating away from home. According to a recent study by the American Heart Association and the Robert Wood Johnson Foundation (2007), the number of fast food outlets in the United States increased from 30,000 to 140,000; and spending in these fast food restaurants has increased by over three-hundred percent over the last three decades.

Decreased Physical Activity/Increased Television Watching

Another contributing factor to increased overweight and obesity among youth is a lack of access to safe environments for children to play in, especially in the low-income family housing where playgrounds are mostly obsolete (Gortmaker, 2002). This contributes to children staying inside and watching television or playing video games. According to Huston (2001), over 98% of American households own at least one television as compared to only 2% in 1950's. The *Journal of Obesity* and *Lancet* reported that increased time spent watching television is a "significant predictor of body mass index (BMI) and overweight in childhood" (Hancox, Milne, & Poulton, 2004 and Hancox & Poulton, 2006). A cross-sectional survey of 12-18 year olds by Dietz and Gortmaker (1985) further indicated for each hour of television that was viewed, the "prevalence of obesity increased by two percent" (p. 807). The Framingham Children's Study also concluded that "television watching was an independent predictor of the change in the child's BMI" and that television watching was a risk factor for change in body fat (Proctor, Moor, Cupples, Bradlee, Hood, & Ellison, 2003). Rowlett (2006) reported that American adolescents, during their twelve years of school, spend over 15,000 hours watching television and playing video games. This is more time than the average student spends in school which averages 12,000 hours (p. 654).

Advertising

Television advertising also increases the risks of poorer food choices. Advertisers on children's shows generally market to children targeting foods that include a large percentage of non-beneficial caloric items such as candy, sodas, and fast food. The Henry J. Kaiser Family Foundation (2004), has estimated that a "typical child sees about 40,000 ads a year on television alone" (p.1).

These same advertisers are moving to web marketing as indicated in a study conducted by the Kaiser Family Foundation. The Neilson's ratings concluded that 12.2 million Web visits were from children aged 2-12 and, of on-line food advertising, eight-five percent of the top food brands that target children through television advertising also market to children through web sites. As further enticement, seventy-three percent of the web sites feature "*advergames*," online games featuring a company's product or brand such as Chips Ahoy, M & M's, and Pop-Tarts (p. 13).

Legislation

Over two decades ago (1983), the National Commission on Excellence in Education released a report that would be the catalyst for school reform in the 21st Century. *The Nation at Risk* report was an attempt to identify problems in the educational system in the United States by making citizens aware of where education has failed and why these findings were detrimental to the success of the individual as well as the future of society. Among these recommendations were the inclusion of "more rigorous and measurable standards and higher expectations for academic performance" (*Nation at Risk Report*) and educational tools for life-long learning. This recurring language is found over a decade later in 1994, in former President Bush's Goals 2000:

Educate America Act, and today in current President Bush's No Child Left Behind Act of 2001, which reauthorizes the Elementary and Secondary Education Act (ESEA) of 1965. The federal government has spent over \$200 billion dollars to help states carry out these requirements which omit reference to supplementary funding for health and physical education programs.

Increased federal mandates have placed increasingly more pressures on school systems for student academic achievement and accountability. According to Katz (2006), school officials are reducing the amount of time for physical education in order to gain more time for the academic subjects specified in the 'No Child Left Behind' (NCLB) legislation" (p. 144). Pollatschek and Hagen revealed "children engaged in daily physical education show superior motor fitness, academic performance and attitude toward school as counterparts who do not participate in daily physical education" (Jensen, 1998, p. 86). The Shape of the Nation Report indicates that over fifty-percent of school-aged students do not participate in regular daily physical activity, yet this may be one of the easiest controllable environmental factors. Both the Secretary of Health and Human Services and Secretary of Education (2000) cited physical activity as having positive effects on mental health. The positive impact of physical activity may further lead an increase in a student's capacity for learning. This observation was supported by the 1996 U.S. Surgeon General's Report on Physical Activity and Health which indicated that "physical activity contributes to improved self-esteem and lessens symptoms of depression" (p. 243).

Local Wellness Policies

Today's teachers, administrators, districts, and states are finding themselves confronted with yet another education reform. In June of 2004, President Bush signed House Bill 108-265 (included in the federal Child Nutrition and Woman, Infant, and Children (WIC) Reauthorization Act of 2004), which required all local education agencies that participate and receive federal funding under the National School Lunch Program develop and begin implementing school wellness policies beginning in 2006. Five requirements of the federal mandate for school wellness polices include:

- Goals for nutrition education, physical activity;
- Nutrition objectives that promote the reduction of childhood obesity;
- Meal reimbursement guidelines;
- Plan for measuring implementation; and,
- Input of multiple stakeholders including parents, students, school board, representatives of the school food authority, school administrators, and other members of the public.

This federal mandate was developed in response to the significant increase in adult and childhood obesity over the past two decades.

Statement of the Problem

Childhood obesity has increased appreciably. There have been numerous studies on causes of childhood obesity including environmental, societal, and genealogical issues. Obesity has a detrimental impact on social and emotional issues in obese children including low self-esteem. There is also well documented research as to the medical cost (over 24.7 billion dollars per year) associated with childhood obesity

including type II diabetes, heart disease, high blood pressure, and cancer. Recent studies have provided documented research on the correlation between type II diabetes and obesity in children. Obesity issues are being addressed by the public school systems that receive federal funding under the food and nutrition programs which now require schools to implement wellness policies. Although there have been many studies on the causes and costs of childhood obesity, and there is new federal legislation that mandates local wellness policies in public schools, less is known regarding the potential challenges to and benefits for implementing local wellness policies in Georgia public schools that grew out of the federal legislation.

The purpose of this study is to understand the potential challenges and benefits of local wellness policy implementation in Georgia public schools.

Research Questions

Overarching Question

What are the potential challenges to and benefits of implementing local wellness policies in Georgia public schools?

Sub-questions

- 1) Who are the key stakeholders that need to be involved in order to implement local wellness policies?
- 2) How will school districts evaluate the implementation of the federal wellness policy mandates?
- 3) What are the barriers that prevent districts from implementing local wellness policies?
- 4) What are the potential benefits of implementing local wellness policies?

Theoretical Framework

The theoretical framework (figure 1) used in this study is from the socio-ecological model developed by McLeroy, K., Bibeau, D, Steckler, A., & Glanz, K. (1988) and was adapted with permission from the author (Appendix A) to include two additional levels, evaluation and culture. This model reflects the relationship of policy attempts to promote public awareness of a topic, in this study obesity, to the roles each segment plays with respect to community, organizational structures, culture/climate, interpersonal, and self. Increased public awareness of obesity prompted federal legislation. This legislation led to mandates that schools adopt local wellness policies through which the organization is utilized as the mechanism to create change. Change begins with the attitudes and beliefs of the individual and their perceptions based on their relationship with family, friends and social networks. As districts begin to implement local wellness policies, it will be critical to identify and evaluate the challenges and barriers to implementation in order make adjustments in the appropriate level of implementation and to understand the culture and climate in which the change is to occur.

Figure 1

Theoretical Framework



Significance of the Study

There is a limited amount of scholarly information regarding the implementation of wellness policies and, due to the nature of the recent legislation, there is very limited information on the potential challenges and benefits of wellness policy implementation; therefore, this study will provide a scholarly contribution to augment these deficiencies. This study will provide educators with the background information that identifies the challenges and benefits during the implementation process of local wellness policies and help those educational leaders identify a collaborative approach to implement wellness policies. This information can further be used for consideration during planning in order to help achieve the desired federal outcome of improved health and a reduction in childhood obesity.

The school years are a formative period when attitudes towards lifetime wellness practices are developed. The effective implementation of wellness policies is not only a federal mandate, but may have a significant impact on reducing childhood obesity. In addition, effective implementation will provide opportunities to enhance current physical education and health practices in the public schools that will have considerable lifetime benefits for current and future students.

Research Procedures

Research Design

The researcher used a qualitative research design. Qualitative research is a holistic systematic approach to collecting data that is reflective and multifaceted. It allowed for an in-depth perspective to contextualize the research in the “particular socio-cultural milieu” of each of the three school districts that would not have been possible in

a quantitative study (Glesne, 2006, p. 4). Due to the humanistic realms of qualitative research, it will present to the reader the relationship between research and the practical application benefits of such research. DeVaus states that qualitative research is “often regarded as providing rich data about real life people and situations and being more able to make sense and understand behavior” (2002, p.5). A qualitative design provided a foundation for the researcher that promoted relationship building and a deeper understanding of the research subjects and their perspectives.

Sampling

Data for this study were collected from a purposive sampling from one small (below 2,500 students), one medium (2,500-5000 students), and one large school district (over 5,000 students) which were located in three different health districts within the State of Georgia that received federal funding under the National School Lunch Program (NSLP). For a purposive sample the “group must meet certain criteria established by the researcher” (Huck, 2000, p. 123). The inclusion criteria were those districts that were identified by the Georgia Department of Education that received federal funding in FY07 under the NSLP. Specifically, the researcher interviewed the individual selected by their school district as the point of contact that was responsible for the implementation of their local wellness policy plus two other individuals from each district that were involved in the development or had experience with their districts local wellness policy. The researcher included three different school and public health districts located in located in the State of Georgia that were identified by the Centers for Disease Control with obesity rates above 25% (CDC, 2007).

Participants

Participants in this study included the individual identified and selected by each of the respective school districts as the point of contact who was responsible for the development and implementation of their districts local wellness policy; at least one principal, and one other individual that participated and had experience in the implementation of their districts local wellness policy. This included, but was not limited to, a superintendent, counselor, school nurse, or teacher. The participants were selected from one small (below 2,500 students), one medium (2,500-5,000 students), and one large school district (over 5,000) located in three different public health districts in the State of Georgia as identified by the researcher.

Instrumentation

A semi-structured interview protocol developed by the researcher was used in this study following the qualitative interview process designed by Glesne (2006). The researcher also used the *Wellness Policy Fundamentals Checklist* (Appendix B) developed by the Action for Healthy Kids and its partners in order to analyze each local wellness policy for inclusion of the five federal mandates as outlined in House Bill 108-265. The questionnaire was designed to provide a checklist for districts to use as guideline as they were designing their local wellness policies. The researcher was granted permission to use the instrument; a copy of the letter is included as Appendix C. This instrument was used to evaluate 112 local wellness policies in order to determine if districts included the requirements of the federal mandates.

Data Collection

Board approved wellness policies were collected and analyzed by the researcher from the three school districts that participated in the study after each districts interviews were completed in order to evaluate the inclusion of the federal mandates of each districts local wellness policy as outlined in the Child Nutrition and Woman, Infant, and Children Reauthorization Act of 2004.

The researcher interviewed participants from November 15, 2007 through February 15, 2008, from three qualifying school districts. The researcher set up interviews based on the availability of the participants from one small, one medium, and one large school district located in the three different public health districts throughout the State of Georgia as identified by the researcher. As the researcher, it was important to incorporate several types of data sources in order to establish trustworthiness of the data. Specifically the researcher selected individuals in each of the school districts that represented different levels of leadership, such as directors, superintendents, counselors, nurses, teachers, or principals. This helped the researcher gather a greater breadth of experiences and perspectives from participants. These multiple levels of data, known as triangulation, helped the researcher “increase the confidence in the research findings (Glesne, 2006, p. 36).

Data Analysis

Data from the interview transcripts were reviewed and analyzed by the researcher through thematic analysis which involved “coding and then segregating the data by codes into data clumps for further analysis and description” (Glesne, 2006, p. 147). The researcher analyzed the data that were similar and organized it into four overarching

themes that corresponded to each of the four research questions: stakeholders, evaluation process, barriers, and benefits. Once the researcher developed the overarching themes, the researcher once again used thematic analysis to clump and organize the remaining data into sub-categories. Brief and succinct codes were developed using the theme and the sub-categories and organized into a transcription code key (Appendix D). Once this process was completed, the researcher placed the codes in each of the nine transcripts using the appropriate corresponding code.

Each districts wellness policy was evaluated based on the criteria from the Wellness Policy Fundamentals Checklist and was compared to a study of 112 local wellness policies by the Action for Healthy Kids in order to identify the absence or inclusion of the federal mandates. The identification of these criteria was important in order to evaluate the implementation progress of each districts local wellness policy.

Limitations

- 1) This study was limited to Georgia Public Schools districts that participate and receive federal funding under the National School Lunch Program.
- 2) Persons interviewed were selected by their respective districts.
- 3) This study was limited to the population that was interviewed based on their respective knowledge of their districts local wellness policy. There may have been other individuals that had input in the development and implementation of local wellness policies that were not interviewed.

Delimitations

- 1) This study was set in the State of Georgia.

- 2) This study included public school districts that received federal funding under the National School Lunch Program.
- 3) This study included individuals in selected Georgia public school districts that had knowledge of their local wellness policy.
- 4) This study included three selected school districts from eighteen health districts throughout the State of Georgia

Definitions of Terms

Centers for Disease Control and Prevention (CDC). CDC is part of the United States Department of Health and Human Services. It is housed on the campus of Emory University in Atlanta, Georgia. The CDC focuses on developing and applying disease prevention and environmental health, occupational safety and health, health promotion, prevention and education activities designed to improve the health of the people of the United States.

Childhood Overweight. At risk of overweight at the 85th percentile to less than 95th percentile on the growth charts for the United States. Overweight equal to or above the 95th percentile on the growth charts for the United States (CDC, 2007).

National Center for Health Statistics. Provides United States public health statistics including diseases, pregnancies, births, aging, and mortality (CDC, 2007)

Obesity (see childhood overweight). Weight for height above the 95th percentile on the growth charts from the National Center for Health Statistics (NCHS). For adults, the body mass index above 30% (CDC, 2007).

Quetelet or Body Mass Index (BMI). Body Mass Index is calculated by the weight in kilograms divided by the square of the height in meters.

Wellness Policy Fundamentals Checklist. A tool developed by the Action for Healthy Kids and its partners: the Centers for Disease Control and Prevention's Division of Adolescent and School Health, United States Department of Agriculture, National Association for Sport and Physical Education, School Nutrition Association, and the Food Research Action Council, to evaluate local wellness policies. This is a tool districts can use as a guide to ensure that all the requirements of the federal legislation is included in their local wellness policy.

Summary

Childhood obesity has become an epidemic that can no longer be ignored. Environmental, societal, and genealogical issues contribute to childhood obesity which has detrimental impact on the social and emotional well-being in children including lower self-esteem. It is directly associated with type II diabetes, skin disorders, and death. There needs to be a cultural shift in the way health and wellness is perceived not only in society, but in our public schools. The school years are a formative time when attitudes towards lifetime wellness and physical activity practices are formed. As increased federal mandates place more pressures on schools for student academic success, districts will need to find creative ways to implement local wellness policies as part of daily instruction that includes collaboration between schools, communities, parents, and students. The effective implementation of wellness policies is not only a federal mandate, but may have a significant impact on reducing childhood obesity. Proper nutrition and physical activity can improve academic achievement and overall health. In addition, effective implementation will provide opportunities to enhance current physical

education and health practices in the public schools that may have considerable lifetime benefits for current and future students.

The researcher used a qualitative design in her project in order to gain an in-depth understanding of what schools and districts were doing to implement their local wellness policies. Current research focuses on quantitative studies that address risk factors and contributors to childhood obesity. This study focused on challenges districts face when implementing local wellness policies as well as the potential benefits of implementing local wellness policies in Georgia public schools.

CHAPTER 2

REVIEW OF THE LITERATURE

The year 2006 marked both the fiftieth anniversary of the President's Council on Physical Fitness and the first year school districts were required to establish local wellness policies due to significant increases in childhood obesity and the potential health related epidemiology associated with the decline of American health. The importance of healthy lifestyles can be traced as far back to 400 B.C. as recorded by Hippocrates, an ancient Greek physician who was known as the father of medicine (Encyclopedia Britannica, 2007). He believed, as written in the *Aphorismi*, that every disease “has its own nature and arises from external causes” (Encyclopedia Britannica, 2007). The Greek Empire also supported physical education of its people. They trained their youth in “temperance, sobriety, and athletic exercise (Shattuck Report, 1850). The turn of the 19th Century brought new and modern conveniences to the world; but at a cost where physical labor has been replaced with sedentary activities; where the conveniences once only for the aristocrats were now available to the general population; where fast food has replaced family meals; where television and video games have replaced backyard baseball; and, where the environment once used for walk and play has been replaced by motor vehicles and condominiums. These modern conveniences have led to a decrease in physical activity, poorer food choices, a decline in public health, and an increase in adult and childhood obesity that has reached epidemic proportions with costs into the billions of dollars and which has gained the attention of local, state, and federal policy makers.

Early Role of Public Health

During the mid 1800's, schools played an important role in the reduction and spread of disease. The emergence of public health was credited to Lemuel Shattuck in the *Sanitary Report of the Commissioners regarding the Sanitary Conditions of Massachusetts (1850)*. The report defined sanitary as a derivative from the Latin word *sanitas* meaning soundness of body, health; and, hygiene for the Greek word Hygeia, the goddess of health, meaning to be well (p. 9). This report emphasized disease prevention and society's obligation to protect its people in order to reduce preventable deaths. The sanitary report revealed the unclean conditions in which children were educated and the outbreak of disease in the poor. The report recommended that consideration be given to adopt local, state, and federal policies in order to improve public health.

New York led the way to reduce the spread of disease and offered free vaccinations to the poor. The city also initiated "a program of sanitary inspections of all public schools twice a year (Institute of Medicine, 1997, p. 34). This program soon expanded to other states such as Illinois and Pennsylvania. These inspectors were medical personal whom donated their time. By 1915, the New York Board of Education required that all students prior to entering school must go through a physical exam (Institute of Medicine, p. 36). This pursuit of the well-being of our children was just the beginning of the role public education and government would play throughout the next century.

19th Century Schools

Throughout the last part of the 19th Century, schools mainly served the needs of the communities (Tyack, 2000). Although our system may have been seen as

comprehensive, education was still in its infancy. Several factors that influenced the curriculum in schools during this time included: 1) characteristics of society; 2) basic human needs; and, 3) the availability of resources and materials (Polka, 1994). The characteristics of society were changing through the diversity of European immigrants, our commitment to serve Native Americans, segregation issues, and the poor; all bringing new challenges to schools in order to meet the academic, social, and physical needs of all children. Over the last century, schools have been caught up in the cycle by the increased role of federal and state education mandates that have dramatically impacted the school culture and climate in order to meet the needs of the community as well as society at large.

National School Lunch Act

The historical role of federal education was meant to be “a means of filling gaps in state and local support for education when a critical national need arises” (DOE, ¶3). In 1935, the government passed Public Law (PL) 320. This law provided relief to farmers in which the surplus of commodities would be given to poorer communities to help provide food and nutrition to the public schools which set the stage for what would later become the National School Lunch Act. In 1946, the National School Lunch Act was launched. Section 2 of the Act defines its purposes as stated: "It is hereby declared to be the policy of Congress, as a measure of national security, to safeguard the health and well-being of the Nation's children..." - P L. 396 -79th Congress, June 4, 1946, 60 Stat. 231 – United States Department of Agriculture Food and Nutrition Service (Library of Congress). This law led to the increased awareness for a proper diet including good nutrition and physical activity for children attending public schools.

During this time, the lack of health and fitness also raised the attention of the federal government as many men were rejected for the World War I draft. According Pangrazi, over one-third of the draftees were considered “unfit for military service” (1998, p. 9). Post World War I set the stage for eight states (California, Delaware, Illinois, Maryland, Nevada, New Jersey, New York and Rhode Island) to adopt physical education classes in schools. This was a result of heightened concern of the lack of “preparedness and troop fitness” in the United States Military (Manzo, 2000, p.126).

Height and Weight Charts

The costs to society were beginning to emerge. The lack of fitness was not only evident in our troops, but evident in life insurance policy holders. Louis Dublin, a statistician for the Metropolitan Life Insurance Company, compared over four million policy holders and noticed that as weight increased, so did morbidity. It was these findings around 1942 that the beginnings of obesity would be correlated with morbidity. This led to the first height weight charts for “ideal” body weight for women (Table 1) and men (Table 2) and resulted in increased premium rates for policy holders that were identified outside of their respective target zones (United States National Library of Medicine Archives, NIH -MSC316).

President’s Council on Physical Fitness and Sports

A decade later, Dr. Hans Kraus, MD and Bonnie Prudent published an article titled Muscular Fitness and Health in the *Journal for the American Association of Health, Physical Education, and Recreation* which highlighted the poor physical fitness of the country. This prompted a study on fitness of over 4,400 American and 3,000 European students which was published in the *New York State Journal of Medicine*. Kraus and

Prudent (Hirschland) found that only eight percent of the European students failed a fitness test component as compared to more than 56 percent of students in the United States (p. 41). These alarming statistics prompted President Dwight D. Eisenhower to establish the President's Council on Youth Fitness in July of 1956, which was later named the President's Council on Physical Fitness and Sports. The Council was to "be a catalytic agent to stimulate and encourage action at the grassroots level" (p. 43).

Table 1

Weight Charts for Women

Height	Small Frame	Medium Frame	Large Frame
4'09"	90-97	94-106	102-118
4'10"	92-100	97-109	105-121
4'11'	95-103	100-112	108-124
5'00"	98-106	103-115	111-127
5'01"	101-109	106-118	114-130
5'02"	104-112	109-122	117-134
5'03"	107-115	112-126	121-138
5'04"	110-119	116-131	125-142
5'05"	114-123	120-135	129-146
5'06"	118-127	124-139	133-150
5'07"	122-131	128-143	137-154
5'08"	126-136	132-147	141-159
5'09"	130-140	136-151	145-164
5'10"	133-144	140-155	149-169

Metropolitan Life Insurance Company, 1959 – Females

Table 2

Weight Charts for Men

Height	Small Frame	Medium Frame	Large Frame
5'01"	105-113	111-122	119-134
5'02"	108-116	114-126	122-137
5'03"	111-119	117-129	125-141
5'04"	114-122	120-132	128-145
5'05"	117-126	123-136	131-149
5'06"	121-130	127-140	135-154
5'07"	125-134	131-145	140-159
5'08"	129-138	135-149	144-163
5'09"	133-143	139-153	148-167
5'10"	137-147	143-158	152-172
5'11"	141-151	147-163	157-177
6'01'	145-155	155-173	165-183
6'02"	153-164	160-178	166-187
6'03"	157-168	165-183	175-197

Metropolitan Life Insurance Company, 1959 - Males

Legislation

Over two decades ago (1983), the National Commission on Excellence in Education released a report that would be the catalyst for school reform in the 21st Century. The *Nation at Risk* report was an attempt to identify problems in the educational system in the United States by making citizens aware of where education had failed and why these findings were detrimental to the success of the individual as well as the future of society. Among these recommendations were the inclusion of “more rigorous and measurable standards and higher

expectations for academic performance” (*Nation at Risk Report*) and educational tools for life-long learning. This recurring language is found over a decade later in former President Bush’s *Goals 2000: Educate America Act*, and today in current President Bush’s *No Child Left Behind Act of 2001*, which reauthorizes the Elementary and Secondary Education Act (ESEA) of 1965. The act was signed by President Bush on January 8, 2002 as a means of educational reform based on four main ideals: (1) *more choices for parents* – low achieving schools must offer choice if they do not meet adequate yearly progress (AYP) for two years, and provide supplemental services after three years of being listed as low achieving; (2) *stronger accountability for results* – the Act requires states to describe how they will close the achievement gap and make sure all students achieve academic proficiency, in addition the Act requires states and districts to produce annual reports on achievement; (3) *encouraging proven educational methods* – requires the schools to use proven, effective, scientific researched-based programs; and, (4) *more local freedom* – can use up to 50% from other federal grant programs to put towards the low performing schools (DOE, 2007). The federal government has spent over \$200 billion dollars to help states carry out these requirements. This has lead to an increase amount of school time spent on academics and has decreased, and in some cases eliminated, health and physical education classes.

The lack of physical fitness and nutrition of youth has gained national and international awareness due to the significant increase of obese and overweight children in the world which now exceeds 155 million children age 5-19 years (Lobstein, T., Baur, L. & Uauy, R., 2004). Childhood obesity in this century has not only become a concern for the health professionals, but a crisis around the world that has raised the attention of educators, media, and policy makers alike (Moyayeri, Bidad, Aghmohammadi, Rabbani, Anari, Nazemi,

Gholami, Zadhoush, Hatmi, 2006). According to Dietz, it is not only an epidemic in the United States, but “every country that has collected longitudinal data has found an increased prevalence of childhood overweight” (2002, p. v); obesity warrants policy as well as environmental changes and society cannot even begin to fathom the potential intrinsic and extrinsic costs (p. 273). In an article published by the *China Daily*, Ricardo Uauy, President of the International Union of Nutrition Sciences, stated “we need urgent action. The time is now” (2004, ¶2). Due to this significant public out-cry in the world and in the United States, President Bush, in June of 2004, signed House Bill 108-265 - included in the federal Child Nutrition and Woman, Infant, and Children (WIC) Reauthorization Act of 2004 - which required that by fiscal year 2007, all local education agencies that participate and receive federal funding under the National School Lunch Program develop and begin implementing school wellness policies in order to reduce the epidemic of childhood obesity.

Obesity

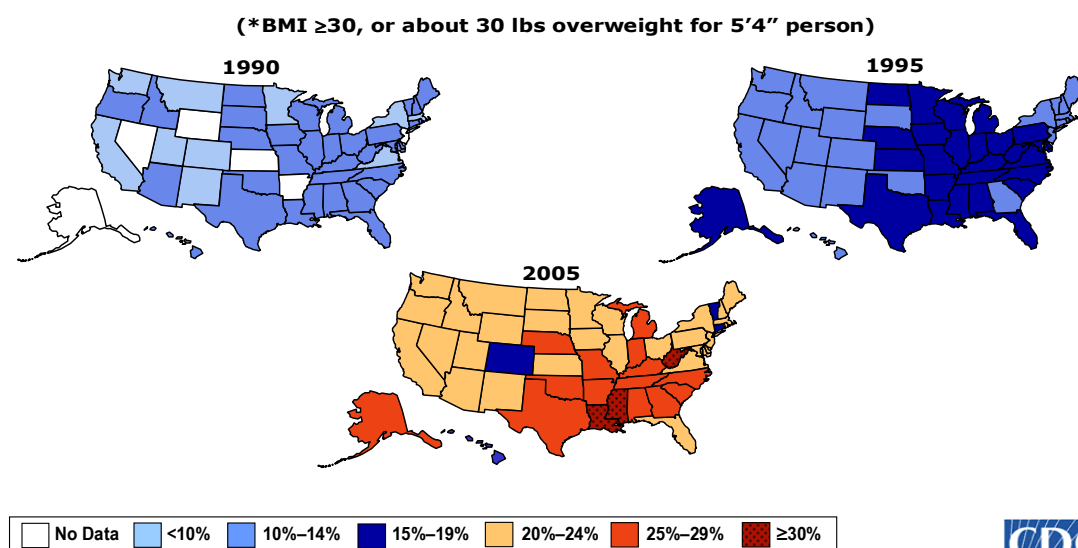
Former United States Surgeon General David Satcher remarked “...we see a nation of young people seriously at risk of starting out obese and dooming themselves to the difficult tasks of overcoming a tough illness” (2003, Crister). Scholars and health professionals generally accept the definition of obesity in adults as a Body Mass Index above 30. Obesity in children (labeled childhood overweight) is defined as weight for height above the 95th percentile on the growth charts from the National Center for Health Statistics (NCHS). At risk for overweight in children is defined as weight for height above the 85th percentile and less than the 95th percentile on standard growth charts which are generally used by pediatric physicians in the United States for children (CDC, 2007). The most widely used measurement for over or under weight is the Quetelet or Body Mass Index (BMI). Body

Mass Index is calculated by the weight in kilograms divided by the square of the height in meters. It is a comparison of a person's height and weight proportions as measured by a set standard and generally accepted in the medical community.

Weight gain occurs over prolonged periods of time when the energy input is greater than the output of energy expended due to genetics, overeating, lack of physical activity, and/or poor nutritional habits. Data that obesity is a significant and increasing problem is accumulating. According to the National Health & Nutrition Examination Survey III, between 1980 and 2004 (Figure 2) obesity among adults ages 20-74 increased from 15% to 32.9% (CDC, 2004). In Georgia, obesity rates have gone from twelve percent (12%) in 1985 (Table 3), to more than twenty-seven percent (27%) in 2006 (CDC, 2006). Obesity in children (Table 4) ages 6-11 increased from 6.5% to 18.8%; and, children ages 12-19 increased from 5.0% to 17.4% (CDC, 2004).

Figure 2

Obesity Trends Among U.S. Adults



Source: Behavioral Risk Factor Surveillance System, CDC.



Table 3

Obesity Trends in the State of Georgia by Year

%	Year	%	Year
10-14	1985	10-14	1997
<10	1986	15-19	1998
10-14	1987	≥20	1999
<10	1988	10-14	1990
<10	1989	≥20	2000
<10	1991	20-24	2001
10-14	1992	20-24	2002
10-14	1993	20-24	2003
10-14	1994	20-24	2004
10-14	1995	25-29	2005
10-14	1996	27.1	2006

Behavior Risk Surveillance Survey

Table 4

Prevalence of Overweight Among Children and Adolescents Ages 6-19 Years, for Selected Years 1963-65 through 1999-2002

Age in Years(1)	NHANES 1963-65 1966-70(2)	NHANES 1971-74	NHANES 1988-94	NHANES 1999-2000	NHANES 2001-02	NHANES 2003-04
6-11	4.2	4	11.3	15.1	16.3	18.8
12-19	4.6	6.1	10.5	14.8	16.7	17.4

National Health and Nutrition Examination Survey

¹Excludes pregnant women starting with 1971-74. Pregnancy status not available for 1963-65 and 1966-70.

²Data for 1963-65 are for children 6-11 years of age; data for 1966-70 are for adolescents 12-17 years of age, not 12-19 years.

Societal Costs

Paralleling these statistics, the Centers for Disease Control estimate that obesity accounts for approximately \$22.2 billion of the total cost of heart disease. A 1947 study conducted by Wilens of 1,250 deceased persons found 395 were identified as obese. Of the 395 that were identified as obese, atherosclerosis, a build up of plaque in the arterial walls of the heart, was 2.5 times higher than the non-obese sample.

Obesity more than doubles the chance of high blood pressure and, increases the risk of diabetes, colon and breast cancer, osteoarthritis, high cholesterol, and gall bladder disease (National Center for Health Statistics, 2007). In a comparison of both the 1988 and 1994 National Health Interview Surveys, obesity accounted for over 62.6 million doctor visits associated with an estimated 39.2 million days of missed work; with a projected cost of 3.9 billion dollars lost in business productivity (Wolf & Colditz, 1998).

Impact of Childhood Obesity

Physical/Social/Emotional

A number of problems are associated with childhood obesity. Obesity has a negative impact on children's emotional and social well-being and increases depression (Sjoberg, Nilsson, & Leppert, 2005). A study of 4,743 adolescents found that although there were significant harmful effects of obesity including depression and lower self-esteem; being overweight, not obese, did not report poorer emotional risks or a decrease in school functioning or quality of life (Swallen, Reither, Haas, Meir, 2005). Overweight and obese children tend to have lower self-esteem and often are the victims of bullying at their schools (Gunturu & Ten, 2007). In a recent study of 4,703 students between the ages of 15-17,

obesity was “significantly related to depression and depression symptoms” (Sjoberg, Nilsson, Leppert, 2005).

Medical Problems

Obesity in children has been linked to increased asthma, early puberty, eating disorders, skin disorders, and type II diabetes (Mayo Clinic, 2006). Type II diabetes accounts for “half the cases of newly diagnosed diabetes in children ages 10-21”; and, parallels the increased cases of childhood obesity (Perkin, p.67, 2004). The American Diabetes Association reported that Type II diabetes can increase the risk for heart disease, cause blindness, nerve damage, and kidney damage. Although there is a correlation between diabetes and obesity there are many individuals that may not develop the disease (Henry & Nudallear, 2003). Ludwig and Ebbeling reported that Type II diabetes in “children is more strongly associated with obesity than with any other clinical condition” (2001, p. 1427).

Contributors to Obesity

For years, experts have identified various issues or concerns that have contributed to the obesity epidemic in the United States today. These issues, including the home environment, time spent away from home, the convenience of fast food which has had a major impact on the daily caloric intake, television, computers, video games, and modern conveniences which have led to more sedentary lives.

Home Environment

Childhood obesity is a precursor which could lead to adulthood overweight and obesity and thus an increase in morbidity (Jansen, Katzmarzyk, Srinivasan, Chen, Malina, Bouchard, Berenson, 2005). Dietz reported that up to 75 % of adolescent obesity is

retained throughout adulthood (2004). According to Rowlett (2006), children that have two obese parents have a 70% chance of becoming obese. This number decreases to 50% if one parent is obese and to less than 10% if neither parent is obese (p. 655). Although there are genealogical factors, eating habits and lifestyles are also contributing factors. For example, a 50 year cohort study of one-thousand families found that although obese children were five to nine times more likely to become obese adults; the body mass index at the age of 50 was a greater predictor of obesity related health risks (Wright, Parker, Lamont, & Craft, 2001). Home environment may also have an impact on childhood obesity. In a study conducted over a period of six years of 2,913 children between the ages of 0 and eight, Strauss and Knight reported that there was a significant risk of developing childhood obesity in low income homes where the mother was obese and there was less cognitive stimulation (1999). A study of 324 youth also reported that the mothers with lower educational background, high school only, reported less likely being counseled during primary care visits on diet and nutrition and therefore, less likely to discuss with their children (Taversas, Sobol, Hannon, Finkelstein, Wiecha, Gortmaker, 2007).

Environmental

Another contributing factor to increased overweight and obesity among youth is a lack of access to safe environments for children to play, especially in the low-income family housing where playgrounds are mostly obsolete (Gortmaker, 2002). This contributes to children staying inside and promotes a more sedentary lifestyle. Another contributing factor is the availability of non-nutritious snacks and soft drinks in stores and school vending machines. In a study of 204 middle school children, over one-third

of the students “consumed 12 ounces or more of soda on the day of the study” (Davy, Harrell, Stewart, & King, 2004, p. 571). In addition, over half the students failed an exam regarding health and nutrition (Davy, et al.). The American Academy of Pediatrics reported that there is an association between soda intake and a child’s BMI, additionally, there is a “60% increase in the risk of obesity” (2004, p. 153). Time may also be a consideration. The Centers for Disease Control and Prevention report that less than 46% of high school students were enrolled in physical education classes in 2003 which was a decrease of 42% from a decade ago (Centers for Disease Control, 2003).

Technology

Computers, video games, and television also contribute to children staying inside. According to Huston (2001), over 98% of American households own at least one television as compared to only 2% in the 1950’s. The *Journal of Obesity* and the *Lancet* reported that increased time spent watching television is a ‘significant predictor of body mass index (BMI) and overweight in childhood’ (Hancox, Milne, & Pulton, 2004 and Hancox & Poulton, 2006). Dietz and Gortmaker (1985) found in an evaluation of the National Health Examination Surveys II & III, of 6, 965 and 6,671 12-17 year olds respectively, reported as the number of hours of television increased; the prevalence of “obesity increased by 2% for each additional hour of television viewed” (p. 807). The Framingham Children’s Study also concluded that “television watching was an independent predictor of the change in the child’s BMI,” and that television watching was a risk factor for change in body fat. They further reported that the more children watched television, the higher their body fat percentages were over time (Proctor, Moor, Cupples, Bradlee, Hood, & Ellison, 2003). Rowlett reported that American adolescents during

their twelve years of school spend over 15,000 hours watching television and playing video games. This is more time than the average student spends in school which averages 12,000 hours (Rowlett, 2006, p. 654).

Advertising

Increased television viewing also increases the risks of poorer food choices. Advertisers broadcasting on children's networks generally target foods that include a large percentage of non-beneficial caloric items such as candy, sodas, and fast food. The Henry J. Kaiser Family Foundation (2004), has estimated that a "typical child sees about 40,000 ads a year on television alone" (p.1). In a New Zealand study of 3,275 children, 5-14, found that advertising influenced the frequency of the children's choices to drink more soda and eat less nutritious snacks (Utter, Scragg, Schaaf, 2006).

These same advertisers are moving to web marketing as indicated in a study conducted by the Kaiser Family Foundation. The Neilson's ratings concluded that 12.2 million Web visits were from children aged 2-12 years and, of on-line food advertising, eighty-five percent of the top food brands that target children through television advertising also market to children through web sites. As further enticement, seventy-three percent of the web sites feature "*advergames*," online games featuring a company's product or brand such as Chips Ahoy, M & M's, and Pop-Tarts (p.13).

Fast Food

According to a recent study by the American Heart Association and the Robert Wood Johnson Foundation (2007), over the past three decades, the number of fast food outlets in the United States increased from 30,000 to 140,000 and spending in these fast food restaurants has increased by over three-hundred percent. Since 1970 approximately

twenty-five percent (25%) of total food costs were spent at restaurants at an estimated cost of \$6 billion; by the 1990's over forty percent (40%) of total food costs were spent eating away from home costing consumers over \$110 billion (Schlosser, 2005). Rowlett reported since the evolution of "supersize" the caloric intake of the average hamburger, fries, and soft drink meal has increased from 491 calories in the 1950's to over 1,114 calories by 2004 (Table 3, Rowlett, 2006, p. 653). The convenience and availability

Table 5

*Fast Food Changes**

Item	1954		2004	
	Ounces (oz)	Calories	Ounces (oz)	Calories
Burger King Burger	2.8	208	4.3	310
McDonald's Fries	2.4	210	7.0	610
Coca-cola	6.5	79	16.0	194
Total		491 calories		1,114 calories

**Assuming that everything else in an adolescent's diet and physical activity were the same and that fast food was only consumed once a week, this single change would result in a net increase of 623 calories per week, an extra 9lb per year.*

of "supersize" has not come without cost. In August 2002, a major lawsuit filed against the McDonald Corporation, *Pelman v. McDonalds*, whereas Pelman alleged that McDonalds practices for selling products was deceitful and led to her daughter becoming obese. This case was dismissed due to the claimant not being able to prove that McDonald's food was the proximate cause of Pelman's obesity. This widely publicized case further prompted twenty-three states to pass anti-obesity laws against persons from

suing; with another sixteen with anti-obesity law suits legislation pending (American Restaurant Association, 2007). Additionally, since 2004, the McDonald's corporation has added more nutritious items to the menu. These include apples, fruit and yogurt, salads, and grilled chicken wraps (McDonald's, 2007).

Local Wellness Policies

Background of the Policy

As result of the increased awareness and the significant public interest of reducing the epidemic of childhood obesity, the federal government established local wellness policies. All local education agencies that participate and receive federal funding under the National School Lunch Program are required implement school wellness policies beginning in 2006, as required under House Bill 108-265 - included in the federal Child Nutrition and Woman, Infant, and Children (WIC) Reauthorization Act of 2004. Five requirements of the federal mandate for school wellness polices under the provisions provided in Public Law 108-265, Section 2507, include the following:

- Goals for nutrition education, physical activity, and other school-based activities;
- Nutrition guidelines for all foods available on each school campus during the school day with the objectives of promoting student health and promoting the reduction of childhood obesity;
- Meal reimbursement guidelines;
- Plan for measuring implementation; and,
- Input of multiple stakeholders including parents, students, school board, representatives of the school food authority, school administrators, and other members of the public.

Nutrition Education

In a recent survey reported by the Trust for America's Health, designed and conducted by an independent consulting firm, forty-eight percent of the 1,021 respondents over the age of eighteen did not feel school lunches were "nutritious enough" (p.88). Additionally, over sixty-six percent supported "establishing higher nutritional standards for school lunches" (p.88). A study conducted in Korea by Kim, Frongillo, Sung-Sook, Se-Young, Woo-Kyung, Young-Ai, Hye-Sook, Hyun-Sook, and Sook-He (2003) of 6,463 students found a direct relationship between a proper diet and academic performance; breakfast having the greatest impact on academic performance for students in grades five and eight.

Reducing the price of low calorie/low fat snacks sold in school vending machines may be one way to promote healthy food choices. A study conducted by French, Jeffery, Story, Breitlow, Baxter, Hannan, and Snyder (2001) found that reducing the cost of low calorie snacks by ten percent was effective in promoting lower-fat snack purchases from vending machines in both adults and children.

Physical Activity

Both the Secretary of Health and Human Services and Secretary of Education (2000) cited physical activity as have positive effects on mental health. The positive impact of physical activity may further lead an increase in a student's capacity for learning. This observation was supported by the 1996 U.S. Surgeon General's Report on Physical Activity and Health which indicated that "physical activity contributes to improved self-esteem and lessens symptoms of depression" (p. 243). In two separate studies on the integration of physical activity into the academic curriculum, Lewis, Meyr,

Lehman, Trowbridge, Yurman, & Yin (2006) found that energy expenditure was evident and the curriculum was easy to implement as reported by elementary teachers. Oliver, Schofield, & McEvoy (2006) further reported a significant increase in activity levels of the least active students as the outcome in a study of middle school students.

Engaging Stakeholders

The federal mandate requires districts to include a plan that describes how they will engage multiple stakeholders including parents, students, school board, representatives of the school food authority, school administrators, and other members of the public in order to provide input on wellness policy guidelines. These stakeholders will also be involved in the intervention and prevention programs as well as policy implementation.

Political influences sometimes forces organizations to implement new programs where individuals may be resistant. If change is going to occur, it will be important to understand how the organization will tie into the value and belief system of the organization and the community in which the policy will be implemented. Recognizing the strengths and weakness of the individuals within the organization and how these individuals will be engaged in the process will help increase “organization health” (Owens, 2000, p. 233). A healthy organization has mastered this concept and as society influences change, so does the organization communicate these changes through collaboration, autonomy, cohesiveness, and adaptation for sustainability.

Implementation

According to Fowler (2000), generally the implementation of a new policy will fall on the individuals required to put the “policy into practice” (p. 315). There are

several questions that should be asked before a policy is implemented. These include: What is the reason for adopting the policy; is it appropriate for our district; and, does it have sufficient support among stakeholders (Fowler, 2000)? The wellness policy was a federal mandate and required districts to adopt local wellness policies by 2006. Since this may not have had the buy-in of all stakeholders, it will be important to identify potential problems. Fowler reported three common categories of problems. These include program related, people related and setting related (Table 5).

Table 6

Common Implementation Problems by Category

Program Related	People Related	Setting Related
Weak Coordination	Unresponsive target Population	Competition from other organizations
Delays/Conflicts	Lack of skills	Outside pressures
	Negative Attitudes	Unexpected Emergencies
Lack of Planning	Resistance	Powerlessness regarding key decisions
Contradictory goals	Skepticism	Physical Environment
		Lack of Resources

She further indicated that principals identified “teacher time, arranging staff development, teacher morale/resistance” as major problems for implementation (p. 285).

A framework for evaluating obesity prevention policies has been developed by a collaboration of several public health programs by the Centers for Disease Control and

Prevention to use as a guide for wellness policy implementation. The framework was presented by the Institute of Medicine and includes the following;

- 1) Describe the plan or program;
- 2) Focus the evaluation design;
- 3) Gather credible evidence;
- 4) Justify conclusions; and,
- 5) Share lessons learned (IOM, 2007, p. 48).

Within this process the Institute of Medicine emphasizes the importance of identifying needs and the evaluation of existing policies and policies yet to be developed. Reviewing the potential resources within the community as well as potential costs of implementing and proposing new programs is also an important strategy for consideration. A proposed strategy of the initiation of new programs averages twelve months (Institute of Medicine, 2007), assuming that the effort is community-wide and there is a buy-in of all stakeholders. Fowler (2000) supports this timeframe and indicates that truly successful policy implementations usually do not mature until about eighteen months have lapsed.

Robinson (2002) suggests three settings in which to implement obesity prevention programs. These include *primary care* - encompassing physicians, hospitals, school clinics, and public health clinics; *community settings* such as parks, recreation areas, churches, athletic programs, and afterschool programs; and, *school-based* programs. He further indicated that implementation in the primary care arena is not the most effective strategy, since most children see physicians on an annual basis. He also stressed the important role parents play in creating a home environment that promotes healthy living.

Robinson (2000) reported that for most community-based as well as school-based programs, data is not sufficient to establish efficacy; although he did report the Stanford Adolescent Heart Health Program showed “significant increases in regular aerobic activity and heart-healthy food choices, and significant reductions in experimental cigarette smoking (p.249). In addition, since the school setting provides the most convenient opportunity for intervention, schools need to review programs that include behavioral change methods and improve upon programs that have been identified to be successful in their implementation (Robinson, 2000).

Plan for Measurement

Districts are required to measure the implementation of local wellness policies. Currently, there is a nonprofit organization, Action for Healthy Kids, which formed specifically to address the epidemic of obesity and poor nutrition in schools. This organization developed the Wellness Policy Fundamental Checklist (Appendix B) to provide districts with a guideline for evaluating the content of their local wellness policies. Former U.S. Surgeon General David Satcher is the founding chair. This organization is “a collaboration of over 40 national organizations and government agencies and was launched at the October 2002 *Healthy Schools Summit* for which First Lady Laura Bush served as Honorary Chairperson” (Howley, 2007). The organization collected and evaluated 112 local wellness policies in 2006. The overall results of the evaluation were as follows:

- 46% of the districts did not meet the minimum requirements
- 40% did not specify who was responsible for implementation
- 19% did not address implementation or evaluation

- 25% did not explicitly state goals for meeting Dietary Guidelines for school meals
- 18% did not include goals for both physical activity and physical education
- 14% did not specify goals for nutrition education (Howley, 2007).

Although this evaluation is a self-checklist for content, it provides districts with a basic outline for what needs to be included in local wellness policies in order to meet the guidelines of the federal mandate.

Fowler (2000) provides seven steps for evaluating policies. These include: determining the goals; selecting indicators, developing data-collection instruments; collecting data, analyzing and summarizing data; writing the evaluation report; and responding to evaluators' recommendations (p. 306). As districts begin to evaluate local wellness policies, it will be important to determine if they are evaluating for the purposes of assessing the quality of the policy or to improve upon it. Fowler indicates that many policies are political in nature due to the fact that most policies are a result of some type of "political process" (p.314). The local wellness policy is part of a federal mandate that requires districts to carry out the mandates. Since local wellness policies were required to be put in place in districts in 2006, there is information on the content of wellness policies, but little information on the evaluation of the effectiveness of wellness policy implementation.

Summary

"We want a nation of participants in the vigorous life. This is not a matter which can be settled, of course, from Washington. It is really a matter which starts with each individual family. It is my hope...that the communities will be concerned, to make it possible for young boys and girls to participate actively, in the physical life."

President John F. Kennedy

Childhood obesity has become an epidemic that can no longer be ignored.

Childhood obesity is caused by environmental, societal, and genealogical issues and has a detrimental impact on the social and emotional well-being in children. There needs to be a cultural shift in the way health and wellness is perceived not only in society, but in our public schools. The school years are a critical time when attitudes towards lifetime wellness and physical activity practices are formed. Proper nutrition and physical activity can improve academic achievement and overall health. As increased federal mandates place more pressures on schools for student academic success, districts will need to find creative ways to implement local wellness policies as part of daily instruction that includes collaboration between schools, parents, students, and local communities.

Although there has been a recent evaluation of the content of local wellness policies, there is no documented evidence on the potential challenges school districts face in order to implement local wellness policies and the potential benefits to schools and communities if the mandates are monitored and carried out as stated in federal law. Wellness polices could be the catalyst districts need to help increase physical activity, provide opportunities for collaboration of stakeholders, and increase awareness on the importance of proper nutrition in order to promote lifetime wellness. The effective implementation and potential benefits of wellness policy implementation is not only a federal mandate, but may have a significant impact on reducing childhood obesity and improve the overall quality of life for youth.

CHAPTER 3

DESIGN OF THE STUDY

Introduction

The purpose of this study is to understand the potential challenges and benefits of local wellness policy implementation in Georgia public schools.

Research Questions

What are the potential challenges to and benefits of implementing local wellness policies in Georgia public schools?

1. Who are the key stakeholders that need to be involved in order to implement local wellness policies?
2. How will school districts evaluate the implementation of the federal wellness policy mandates?
3. What are the barriers that prevent districts from implementing local wellness policies?
4. What are the potential benefits of implementing local wellness policies?

Research Procedures

Research Design

The researcher used qualitative research design because it is a holistic systematic approach to collecting data that is reflective and multifaceted. It allows for an in-depth perspective to contextualize the respondents in the “particular socio-cultural milieu” of the school districts that they worked in that would have been not be possible in a quantitative study (Glesne, 2006, p. 4). Due to the humanistic realms of qualitative research, it will present to the reader the relationship between research and the practical

application benefits of qualitative research. DeVaus states that qualitative research is “often regarded as providing rich data about real life people and situations and being more able to make sense and understand behavior” (2002, p.5). The qualitative design provided a foundation that promoted relationship building and a deeper understanding of the research subjects that would have been possible through a quantitative approach.

Subjectivities

The researcher has a moral and ethical obligation to reveal his or her biases at the outset of her study. Weis and Fine (2004) refer to such potential biases as subjectivities. It is the perceptions of what we believe to be the truth about a particular phenomenon; even the perceptions of ourselves that lead us to respond positively or negatively in a given situation. Gilligan believed that gender “is the most influential factor in determining one’s view of the world and how one responds to what is perceived” (Owens, 2004, p. 279). As the researcher, it was important for me as a female to understand how both genders may perceive and respond to the research questions. The researcher needed to take into account each respondent’s perceptions and be cognizant of how the researcher may act and/or react as compared to a male perspective in order to neutralize gender biases. Understanding the perceptions of other gender, cultural, or socio-economic differences will afford the researcher a purer perspective of the realities in which the subjects work. The reality remains that there are a lot of inequities, whether it be in ethnicity, socio-economic status, gender, or work places. Being cognizant of the different inequities, perceptions, and prejudices; and, the understanding of the aforementioned through everyday experiences will help the researcher understand personal biases. No one truly knows the breadth and depth of the obstacles one

experiences; having an awareness of subjectivity helps by filtering out personal or political biases and kept the researcher focused on the outcomes and/or results of the research based on the collection of interviews and observations. This way, the researcher was able to pull out key ideas and analyze data based on facts and, in the process helped her “see what they are not seeing” (p. 123) from a different and maybe clearer lens.

As the researcher, it was important to remove the ambiguity of the project as not to prejudice or skew the data. In order to make correlations from the research question to the analysis of the data; the researcher needed to understand the possible disparity and perceptions by the different ethnic and gender groups. The key point being that different persons’ perceptions of the same situation may vary based on past experiences. It was up to the researcher to understand and be sensitive to the culture, climate, and experiences of the individuals in which the researcher interviewed. Katz defines this process as epoche. Epoche helped enable the researcher to investigate the phenomenon from an open view point without prejudice (1987, p. 36). As the researcher I may see the other lens, but I have a moral obligation to understand it without prejudice.

Interview

One of the first areas that the researcher considered prior to the interview process was to determine a way to build rapport and trust with the individuals in the study in order to reduce potential anxiety and to build confidence. In order to protect the integrity of the data collection and reduce anxiety and build confidence the researcher conducted the interviews in the districts in which the participants were employed. A predetermined location was scheduled prior to the interview. The researcher ensured that the location minimized distractions and was secure in order to protect the confidentiality

of the responses (Leedy & Ormond, 2005). A phone *lay summary* was conducted in order to provide the participants with an overview of the research as well as the researcher. A lay summary “prepares participants to take part most effectively for data collection” (Glesne, 2006, 40).

The next step was to develop interview questions that corresponded to each of the research questions in this study. Glense stated, “How a question is worded and asked affects how the interview responds” (2006, p. 83). It was very important the researcher did not guide or lead the interviewee based on their responses or personal assumptions. Because of the experience of the participants with local wellness policies, some novice questions were avoided. Presupposition questions take into account that there already is a basic understanding regarding a particular issue or concept; they allowed researcher to formulate deeper and more pertinent questions that reduced the risk of asking “*leading*” questions. Glense stated that “experience/behavior questions are generally the easiest...and are good places to begin” when you are not as familiar with your interviewee (2006, p.80).

Sampling

Data for this study were collected from a purposive sampling. For a purposive sample the “group must meet certain criteria established by the researcher” (Huck, 2000, p. 123). The inclusion criteria were those districts that were identified by the Georgia Department of Education that included one small (below 2,500 students), one medium (2,500-5000 students), and one large school district (over 5,000 students) which were located in three different health districts within the State of Georgia that received federal funding in FY07 under the National School Lunch Program (NSLP). Specifically, the

researcher interviewed the individual selected by their school district as the point of contact that was responsible for the implementation of their local wellness policy plus two other individuals from each district that were involved in the development or had experience with their districts local wellness policy. Finally, the researcher included three different school and public health districts located in located in the State of Georgia that were identified by the Centers for Disease Control with obesity rates above 25% (CDC, 2007).

Participants

Participants in this study included the individual identified and selected by each of the respective school districts as the point of contact who was responsible for the development and implementation of their districts local wellness policy; at least one principal, and one other individual that participated and had experience in the implementation of their districts local wellness policy. This included, but was not limited to, a superintendent, counselor, school nurse, or teacher. The participants were selected from one small (below 2,500 students), one medium (2,500-5,000 students), and one large school district (over 5,000) located in three different public health districts in the State of Georgia.

Instrumentation

A semi-structured interview protocol (Appendix E) developed by the researcher was used in this study to answer each of the four the research questions following the qualitative interview process designed by Glesne (2006). This required the researcher to develop questions that were used as a guide during the interview process in order to allow for a steady flow of conversation and, if necessary, to ask clarifying questions. During

this process, the researcher was acted as a human instrument. Merriam (2002) indicates the researcher is able to adapt through verbal and non-verbal communication since they are the primary source of the data collection therefore, increasing accuracy due to being able to clarify responses. Additional probing and clarification questions were asked in order to assist the researcher in her investigation.

The researcher used the *Wellness Policy Fundamentals Checklist* (Appendix B) developed by the Action for Healthy Kids and its partners in order to analyze each of the three district's local wellness policies for inclusion of the five federal mandates as outlined in House Bill 108-265. The checklist was designed to provide a guide for districts to use as they were designing their local wellness policies. The researcher was granted permission to use the instrument from Action for Health Kids, a copy of the permission letter is included as Appendix C. This instrument was used to evaluate 112 local wellness policies in order to determine if districts included the requirements of the federal mandates.

Data Collection

Data for this study were collected from a purposive sampling from one small (below 2,500 students), one medium (2,500-5000 students), and one large school district (over 5,000 students) which were located in three different health districts. These health districts had obesity rates above 25% as reported by the Centers for Disease Control, were located within the State of Georgia, and received federal funding under the National School Lunch Program (NSLP). Prior to conducting the study, the researcher obtained a list of the health districts located in the State of Georgia. After gathering this information, the researcher identified the health districts that had obesity rates above

25%. The researcher then developed a list of potential candidates that included one small (below 2,500 students), one medium (2,500-5,000 students), and one large school district (over 5,000 students) which were located in three different health districts. Once these districts were identified, the researcher obtained a list of Superintendents from the Department of Education. The researcher then made phone calls to the superintendents' office of each targeted district and followed up with an e-mail. In addition, the researcher contacted the wellness director from the respective districts. As the researcher it was important to incorporate several types of data sources in order to establish trustworthiness of the data. The researcher selected individuals in the school districts that represented different levels of leadership, such as directors, superintendents, counselors and principals. This process known as triangulation helped the researcher gather multiple levels of data and "increase the confidence in the research finding" (Glesne, 2006, p. 36). The researcher contacted each potential respondent prior to scheduling an interview time to discuss the interview process, research topic, to clarify questions, and to begin building a rapport with the respondents. Informed consent (Appendix F) signed by each participant was required prior to conducting research. The following statement was included as well as part of the interview process:

I must include a brief consent statement before we continue. The contents of this project will be analyzed in my research course at Georgia Southern University. All information with regards to your identity will be kept confidential unless otherwise required by law. If information about this interview is published, it will use pseudonyms or fake names. This project is for research and educational purpose only. The research is not expected to cause any discomfort or stress. However, some people may feel uncomfortable talking about these subjects. If you feel uncomfortable during the interviews, you may decline to answer and stop participating at any time without penalty. No risks are expected. This interview will last approximately one hour and thirty minutes. Do you have any questions? Do I have your consent to continue with this interview?

The researcher interviewed selected participants beginning November 15, 2007 through February 15, 2008, from the three qualifying school districts. The researcher set up interviews based on the availability of the participants. The interviews were conducted face to face in a semi-structured format and all interviews were conducted in the school districts of each of the participants. This allowed for a more relaxed atmosphere and promoted a more in-depth conversation. The interviews were one and half to two hours in length, depending on the responses of the participants. The interviews were tape recorded for accuracy. The researcher also took notes in order to document the non-verbal language of the participants during the interview process.

Once the interviews were completed, the researcher collected a copy the local wellness policy of each district. These policies were then analyzed using the Wellness Policy Fundamentals Checklist (Appendix B) and compared to a study of 112 local wellness policies by the Action for Healthy kids to identify the absence or inclusion of the federal mandates as outlined in House Bill 108-265 - included in the federal Child Nutrition and Woman, Infant, and Children (WIC) Reauthorization Act of 2004. The identification of these criteria was important in order to evaluate the implementation level of each districts local wellness policy.

Five requirements of the federal mandate for school wellness polices under the provisions provided in Public Law 108-265, Section 2507, include the following:

- Goals for nutrition education, physical activity, and other school-based activities;
- Nutrition guidelines for all foods available on each school campus during the school day with the objectives of promoting student health and reducing childhood obesity;

- Meal reimbursement guidelines;
- Plan for measuring implementation; and,
- Input of multiple stakeholders including parents, students, school board, representatives of the school food authority, school administrators, and other members of the public.

Data Analysis

Marshall and Rossman state:

“Data analysis is the process of bringing order, structure, and interpretation to the mass of collected data. . . . qualitative analysis is a search for general statements about relationships among categories of data; it builds grounded theory” (1999, p 150).

The researcher analyzed and interpreted the data collected from the interviews.

Marshall and Rossman stated that the “researcher is guided by initial concepts and developing understandings but shifts or modifies them as she collects and analyzes the data” (1999, p. 151). During the transcription phase, it was important to listen and ensure the researcher understood what was being said without adding her own perceptions and biases’. Paralinguistic’s including voice inflections, body language, and facial expressions were documented by the researcher during the interview process in order to keep the data as pure as possible.

Data from the interview transcripts were analyzed by the researcher through thematic analysis which involves “coding and then segregating the data by codes into data clumps for further analysis and description” (Glesne, 2006, p. 147). Once this process was completed, the researcher synthesized the data in order to relate it to the research questions. The researcher then analyzed the words that were similar and

organized them into four overarching themes that corresponded to each of the four research questions: stakeholders, evaluation process, barriers, and benefits. Once the researcher developed the overarching themes, the researcher once again used thematic analysis to clump and organize the content into categories and grouped the data into sub-categories. The researcher placed the data under one of the four overarching themes that corresponded to the respective research question. When this process was completed the researcher developed the transcript codes. The codes were developed by using the overarching themes plus the sub-categories under each item to develop a brief and succinct code (Transcription Code Key, Appendix D). When this process was completed, the category/codes were color coded into each of the nine transcription documents in order to determine the frequency of each response.

Each districts wellness policy was evaluated based on the criteria from the Wellness Policy Fundamentals Checklist (Appendix B) and was compared to a study of 112 local wellness policies by the Action for Healthy Kids in order to identify the absence or inclusion of the federal mandates. The identification of these criteria was important in order to evaluate the implementation progress of each districts local wellness policy.

Summary

The purpose of this study was to examine the potential challenges and benefits school districts incur when implementing local wellness policies. Qualitative research helped the researcher to focus on all aspects of life that promoted relationship building and deeper understanding of the research subjects. This method provided an in-depth perspective in order to contextualize local wellness policy implementation in each of

three school districts represented in the study. It is expected that this study will provide educators with the background information that identifies the challenges and benefits during the implementation process of local wellness policies and help educational leaders identify a collaborative approach to implementing and evaluating local wellness policies.

CHAPTER 4
REPORT OF DATA AND DATA ANALYSIS

Introduction

Childhood obesity has increased appreciably. There have been numerous studies on causes of childhood obesity including environmental, societal, and genealogical issues. Obesity has a detrimental impact on social and emotional issues in obese children including low self-esteem. There is also well documented research as to the medical cost (over 24.7 billion dollars per year) associated with childhood obesity including type II diabetes, heart disease, high blood pressure, and cancer. Obesity issues are being addressed by the public school systems that receive federal funding under the food and nutrition programs which now require schools to implement wellness policies. Although there have been many studies on the causes and costs of childhood obesity, there is new federal legislation that mandates local wellness policies in public schools. Little is known regarding the potential challenges to and benefits for implementing wellness policies in Georgia public schools that have grown out of the federal legislation.

The effective implementation of wellness policies is not only a federal mandate, but may have a significant impact on reducing childhood obesity. Proper nutrition and physical activity can improve academic achievement and overall health. In addition, effective implementation will provide opportunities to enhance current physical education and health practices in the public schools that may have considerable lifetime benefits for current and future students.

The purpose of this study was to determine the potential challenges to and benefits of implementing local wellness policies in Georgia Public Schools.

Research Questions

This section of the research study will include tables and research findings as analyzed by the researcher. The data will provide an in-depth overview of the analysis of the overarching research question: “*What are the potential challenges to and benefits of implementing local wellness policies in Georgia Public Schools?*” and each of the sub-questions:

- 1) Who are the key stakeholders that need to be involved in order to implement local wellness policies?
- 2) How will school districts evaluate the implementation of the federal wellness policy mandates?
- 3) What are the barriers that prevent districts from implementing local wellness policies?
- 4) What are the potential benefits of implementing local wellness policies?

Research Design

Data for this study were collected from a purposive sampling. For a purposive sample the “group must meet certain criteria established by the researcher” (Huck, 2000, p. 123). The study included a qualitative research design. Qualitative research is a holistic systematic approach to collecting data that is reflective and multifaceted. This allowed for an in-depth perspective in order to contextualize the issue in the “particular socio-cultural milieu” of the school districts that would not be possible in a quantitative study (Glesne, 2006, p. 4). Due to the humanistic realms of qualitative research, it will present to the reader the relationship between research and the practical application benefits of such research. The qualitative design will provide a foundation and a deeper

understanding of the research subjects that would not be possible through a quantitative approach.

Prior to conducting the study, the researcher selected two individuals in education administration and one in the wellness education profession to review the survey questions as a pilot study. Each individual was provided a copy of the research questions to review for accuracy, clarity and flow. Once the individuals provided feedback both oral and written feedback, some questions were slightly revised for clarity and rearranged for more accurate flow of the interview questions and specifically, in the original survey, question one was eliminated due the fact it was not tied to a specific research question (Draft Interview Questions, Appendix G). The researcher presented the information to her Chair and methodologist for additional feedback in order to develop the final list of interview questions (Appendix E).

Data Collection

Prior to conducting the study, the researcher obtained a list of the public health districts from the State of Georgia. After gathering the information, the researcher selected health districts with obesity rates above 25% as identified by the Centers of Disease Control and identified school districts within these qualifying health districts. Once the school districts were identified, the researcher obtained a list of Superintendents from the Department of Education. The researcher then made phone calls to the superintendent's office of each targeted district and followed up with an e-mail. In addition, the researcher contacted the wellness director from the respective districts. The researcher then collected a list of potential candidates from one small (below 2,500 students), one medium (2,500-5,000 students), and one large school district (over 5,000 students) which were located in three

different health districts within the State of Georgia. These districts also received federal funding under the National School Lunch Program (NSLP). The researcher contacted each potential respondent prior to scheduling an interview time to discuss the interview process, research topic, to clarify questions, and to begin building a rapport with the respondents. Once the final list was compiled of the nine individuals in the three different districts, the researcher scheduled dates and times for the interviews and e-mailed each respondent with a confirmation of date and time, and if requested, a copy of the informed consent form (Appendix F). Once the interviews were completed, the researcher collected a copy the local wellness policy of each district. These policies were then analyzed using the Wellness Policy Fundamentals Checklist to learn if the requirements, as outlined in House Bill 108-265 - included in the federal Child Nutrition and Woman, Infant, and Children (WIC) Reauthorization Act of 2004, were included. Five requirements of the federal mandate for school wellness polices under the provisions provided in Public Law 108-265, Section 2507, include the following:

- Goals for nutrition education, physical activity, and other school-based activities;
- Nutrition guidelines for all foods available on each school campus during the school day with the objectives of promoting student health and reducing childhood obesity;
- Meal reimbursement guidelines;
- Plan for measuring implementation; and,
- Input of multiple stakeholders including parents, students, school board, representatives of the school food authority, school administrators, and other members of the public.

Respondents

Demographic Profile of the Respondents

The researcher conducted nine separate interviews selected from three different school districts within the State of Georgia. The school districts were located in three different Georgia health districts. Three persons from each school district were interviewed. District number one included one superintendent, one high school principal, and one district wellness coordinator. District number two included one high school principal, one elementary school principal, and the district wellness coordinator. District number three included one high school principal, one middle school counselor, and the district wellness coordinator. The number of years in education for the total group was one-hundred and eighty with an average number of years in education of twenty years. The number of professional degrees obtained for this group included one Associate Degree, one Bachelor Degree, three Master's Degrees, two Education Specialist Degrees, and two Doctorate Degrees. The group included four male respondents and five female respondents. Two of the respondents were African American and seven respondents were Caucasian.

Findings

Introduction

The researcher conducted nine separate interviews in three different health districts located in the State of Georgia that were identified by the Centers for Disease Control with obesity rates above 25%. All interviews were face to face and conducted in each of three respective school districts at a location determined by each of the nine respondents. The interviews were tape recorded for accuracy of capturing of data. In

addition, the researcher collected field notes to record non-verbal cues and facial expressions to be considered during the data analysis phase of the study. During the interview process the researcher listened carefully and, when appropriate, probed for clarification, and even redirected the respondent if he drifted from the focus of the interview. The researcher frequently asked follow-up questions which helped to make the interview processes remain continuous and smooth. The nine interviews were transcribed and analyzed by the researcher. Marshall and Rossman stated that the “researcher is guided by initial concepts and developing understandings but shifts or modifies them as she collects and analyzes the data” (1999, p. 151). As the researcher read the interview responses, the researcher analyzed the data through thematic analysis which involves “coding and then segregating the data by codes into data clumps for further analysis and description” (Glesne, 2006, p. 147). Once this process was complete, the researcher began to synthesize the data as it related to it to the research questions. The researcher then analyzed the words that were similar and organized them into four overarching themes that corresponded to each of the four research questions: stakeholders, evaluation process, barriers, and benefits. Once the researcher developed the overarching themes, the researcher once again used thematic analysis to clump and organize the content into categories and grouped the data into sub-categories under one of the four overarching themes that corresponded to the respective research question. When this process was completed the researcher developed the transcript codes. The codes were developed by using the overarching themes plus the sub-categories under each item to develop a brief and succinct transcription code key (Appendix D). Once this process

was complete, the category/codes were color coded into each of the nine transcription documents in order to determine the frequency of each response.

The wellness policies were reviewed using the Wellness Policy Fundamentals Checklist (Appendix B). This tool provided a guideline for the researcher in order to evaluate each district's local wellness policy as it relates to the content of the federal mandates for local wellness polices.

Results

The summary of results for identifying potential challenges and benefits of implementing local wellness polices in Georgia Public Schools were derived from nine in-field interviews which were analyzed and coded by the researcher. Data to answer research question number one, key stakeholders, were obtained from responses to interview questions five, seven, eight, and nine (Appendices H-I). Data to answer research question number two, evaluate implementation, were obtained from responses to interview questions four, six, thirteen, and sixteen (Appendices K-M). Data to answer research question number three, barriers to implementation, were obtained from responses to interview questions eleven, twelve, fourteen, fifteen, and seventeen (Appendices N-P). Data to answer research question number four, benefits of, were obtained from responses to interview questions one, two, three, fourteen, fifteen, and eighteen (Appendices Q-S).

Responses to the four research questions are summarized in narrative format below and further presented as frequency of response by each district and further included as Appendices H- S. The data were analyzed by district and by the overall responses of the nine individuals. In order to protect the districts and persons

interviewed, no health district, school district, or personal identification information will be included in the summary of the results. The superintendent and wellness coordinators will be referred to as “district administrators,” the high school and elementary school principals and the middle school counselor will be referred to as “school administrators,” the total group will be referred to as “administrators,” and the individual health/school districts will be referred to as “districts.” Each district’s local wellness policy data will be presented first followed by the results of the interview data, which will be presented in order of the four research questions to answer the overarching question “*What are the potential challenges to and benefits of implementing local wellness policies in Georgia public schools?*”

Local Wellness Policies

The three district local wellness policies were evaluated using the Wellness Policy Fundamentals Checklist designed by the Action for Healthy Kids (Appendix B). The overall results are included in Table 7. All three wellness policies were very similar in content and the policies included the federal requirements as outlined in Public Law 108-265, Section 2507; however, language in each policy was minimal at best. One district administrator reported that “in the areas required of the wellness policy, we basically took the easy way out on most of them...they (committee) did not want it (local wellness policy) to be very confrontational” [shoulder shrug]. For nutrition education only one district mentioned that it would “make available” information for teachers and parents. One district included information that nutrition education would be included in the curriculum; however, there was no guidance for implementation. All districts included the minimum State requirements for physical education and encouraged students, staff,

and parents to participate in physical activity. All districts incorporated the United States Department of Agriculture (USDA) dietary guidelines for nutrition although one district administrator stated “the guidelines are not really heavy on restrictions” [strong tone]. Additionally, two of the districts included recommendations for healthy classroom snacks, vending recommendations, portion sizes, food rewards, and, fundraising. The researcher noted that although these recommendations were included, there were no procedures in place for implementation. Under “other” school support, most district wellness policies referenced materials for marketing in cafeterias and in schools, encouraged family and community involvement, and staff wellness; however they did not provide a structured guideline for implementation. The researcher noted that during the interviews some schools were offering aerobics classes, had walking trails, and utilized the school weight rooms to encourage student and employee wellness. Under both implementation and measurability, no district included a designated person, time frame, or process to measure and implement their local wellness policy (Table 7). It was noted by the researcher that the three district policies did make reference to the responsible party for implementation as being a “designee.”

Table 7

Wellness Policy Data

Federal Mandates	Policy 1	Policy 2	Policy 3
Nutrition Education	Yes	Limited	Limited
Physical Education and Activity	State Standards Only	State Standards Only	State Standards Only
Nutrition Standards	Exceeded Dietary Guidelines	Dietary Guidelines Only	Dietary Guidelines Only
School Meals	Dietary Guidelines Only	Dietary Guidelines Only	Dietary Guidelines Only
Other School health	Limited	Limited	Limited
Implementation	No	No	No
Measurability	No	No	No

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Research Question One

Who are the key stakeholders that need to be involved in order to implement local wellness policies? All nine administrators agreed that in order for the wellness policy to be implemented there needed to be buy-in by several different stakeholders. There was a shared belief that it was important to include school and district administrators, parents, students, school personnel, community resources, and business partners (Appendices H-J).

There was an emphasis by all administrators regarding the important role parents and students play in development and implementation of the local wellness policy. Only one district administrator reported that students were included as part of their district wellness team. In addition, three district administrators and two school administrators in the three different districts shared their concern about the lack of involvement of the parents and students during the development of the local wellness policy “the interesting thing to me, two critical parts to that, were students were not involved, nor were parents or community representatives” and, “I think students should be involved more, and I think that definitely parents should be involved more” [strong tone].

The overall concern by the administrators was that without student and parent participation, enforcement of the goals the districts were trying to achieve with the local wellness policy would be problematic. One school administrator stressed the importance of the parents as role models for teaching good health practices. He indicated that parents are failing to teach and model good nutrition habits and physical activity at home so it then becomes a responsibility of the schools stating “parents are not doing it, so it falls to the schools.”

The administrators were also disappointed at the low response rate to invitations to be a part of the district wellness committee. One district administrator expressed his frustration and indicated that invitation letters were sent out to individuals in the community known to be interested in wellness by the superintendent who was respected in the community, “I thought that their (superintendents) signature would be far more valuable...we did not get very much response from the community, nor did we get much response from the students” [concern, upset].

All administrators shared the belief that support by all stakeholders is a critical element for successful of the implementation of the wellness policy indicating and stressing the viewpoint that if “we don’t have the support...we can’t make adjustments, and then we have an obstacle.” One district administrator pointed out that “parents, students, and community representatives...are the basis of education, whether it’s the wellness policy or anything else” [strong tone].

Research Question Two

How will school districts evaluate the implementation of the federal wellness policy mandates? Responses by school and district administrators to this question were conclusive. Six of the nine administrators indicated that they had nothing in place, did not know, or indicated the wellness policy implementation was not monitored. Three of the nine administrators indicated that they only implemented the federal nutrition guidelines and state required physical education requirements (Appendices K-M). Only one district administrator indicated his district monitored the implementation, however, there was no formal process in place. Others reported that “it (wellness policy) was very generic.” None of the districts reported having an evaluation plan in place in fact, all

administrators except for one district administrator indicated that they did not know that they had to submit a report each year to the state outlining their progress on local wellness policy implementation. Six of the nine administrators indicated that they did not even know that the wellness policy was an implementation policy and one school administrator stated that “as you remember, when you first called I did not know what you were talking about” [half smile]. Most districts indicated that after the wellness committee wrote their respective policies “they gave it (policy) to the board and have not heard another thing” [threw hands up in the air]. Another district administrator reported, “Our (committee) purpose was to write the plan; the implementation of the plan, I am not aware of” [concern] and one district administrator stated that, “I wish I knew of some additional types of evaluation tools that I could use” [mild tone]. One district administrator mentioned his district surveyed schools and, independently, the schools may be evaluating their programs. He further indicated “the schools may be doing something wonderful, but they did not have time to sit there and describe it to me in a survey format” [serious tone, leaning forward].

All districts reported they only followed the state minimum requirements for physical education with the exception of one school. Only one school administrator indicated that his district assessed all the students in physical education class and reports were given to the parents and principal. This information was also submitted at the district level, although the school administrator was not sure how the data were being used. School administrators further expressed optimism that the assessments would continue due to the fact that the assessments were incorporated into the local wellness policy. One school administrator was proud to report that their district exceeded the state

requirements for health and physical education although he indicated “if a student was enrolled in both gifted and foreign language courses, these students received no health or physical education instruction” [disgusted]. He further reported his district had been implementing his physical education for several years and that this was not the result of the local wellness policy.

All districts reported that they were following the United States Department of Agriculture (USDA) federal guidelines for nutrition, which included no foods of minimum nutritional value (FMNV) as defined in Appendix T; one district administrator stated that these “guidelines are not really heavy on restrictions” [serious tone]. One district reported that the policy restricted the sale of the FMNV products during the instructional day, however, the policy did not prevent sale before and after school and during evening school events. In addition, the high schools were still selling “sodas, fat-filled snacks, and candy bars” at some point during the instructional day. One school administrator was upset that the food at concession stands was “still the same red, horrible hot dogs” [wrinkled nose, disbelief]. All districts had changed their soda vending for students to meet the American Beverage Association guidelines for sugar and caloric content but it was noted that in all districts and schools where the interviews took place, there were still vending machines that offered regular sodas and, in the high schools, the student stores were still selling candy bars, sugar snacks, and regular sodas. One school administrator told me, “We sell sodas, candy bars, and chips in our student store.” Additionally, there was a disconnect of the perceptions by the district administrators and school administrators in which the district administrator indicated that

the schools did not sell the regular sodas, candy bars, and snacks whereas the school administrators reported they were selling the aforementioned products.

Although all three districts agreed upon the stakeholders that needed to be involved in the implementation process, two of the districts did not include principals, students, or parents which lead to some non-compliance by the schools. The reason for this finding was offered by one school administrator who indicated “that we are not willing to comply fully with the policy, simply because we have not been included at the table on the discussion” [strong tone].

Research Question Three

What are the barriers that prevent districts from implementing their local wellness policies? This research question raised the most concern for the nine administrators. Although all nine administrators reported that health and wellness were very important, there were many barriers to implementation of the local wellness policy in each of the three districts (Challenges/Barriers, Appendices N-P). In this category in particular, the emotional side of the administrators was noted by the researcher. For example, the “lack of time” and “too much on teacher’s plates” received about nine percent of the frequency of responses (Appendix U); however, the researcher noted the deep concern by district and school administrators regarding the increased amount of work and stress the teachers were facing. One administrator indicated that “it (wellness policy) is another duty to add to someone else’s plate and it’s pretty full already.” Two districts made reference to the increased amount of time teachers missed due to the health issues, especially referencing stress, and further emphasizing that “teachers are so overwhelmed with what their responsibilities are and indicated we have so many teachers

taking medication because they are just overwhelmed and don't feel like they can get the job done" [very concerned]. The nine administrators agreed that teachers were overloaded, referencing that the pressures of increased test scores, graduation requirements, and state academic requirements have all impacted teacher daily work schedules. One school administrator summed it up by stating "to be honest with you, I don't think wellness is really that big of a priority [annoyed], with adequate yearly progress (AYP) and graduation requirements...wellness just has gone to a back burner. All districts indicated that "we are trying to see what we can take off of our plates because they are so full and the teachers are overwhelmed...unfortunately the wellness policy may fall to the wayside" [disenchanted].

Administrators expressed their respective concerns on the issue of loss of revenue from vending machines and school stores. Many districts relied on free vending machines and other in-kind corporate sponsorships from local vending companies. The average revenue in the respective districts was about \$12,000 dollars per high school. These monies were used for teacher incentives, teacher and student scholarships, to purchase uniforms for bands, and to help support athletic programs. Because of the strict mandates for the spending of tax payer dollars, the districts were very emphatic about their need for the vending revenues, and all district administrators indicated that with further decreases in federal and state funding they found it was hard to argue with the concerns about loss of revenue by the school administrators. One district administrator stated, "If we could supplement principals for lost money, then I feel like the vending issue is resolved...but the principals fight tooth and nail for vending profits because what they do with the money is good for children" [strong tone]. One district administrator

expressed that she was working with their district vending companies, especially the soda distributors, and they were aware of the increased push for healthier choices and were putting forth a concerted effort to comply with the American Beverage Association guidelines.

For the total group, the role of culture and family values toward physical activity and good nutritional habits produced the highest percentage of concern (Appendix U). The administrators believed that many food habits are formed in the home and that it is the parents' responsibility to teach good health practices. The cultural differences of food choices and even regional food choices have an impact on children. The administrators shared the belief that "people in South Georgia want to eat, and they want to eat well...they want their fried chicken, French fries, and cheese grits." In addition, the federal government wasn't helping the schools as district administrators noted "the types of United States Department of Agriculture (USDA) food commodities provided to districts are "full of nitrates and fats," therefore sending mixed messages regarding nutrition. The districts felt like they had their hands tied. Some were offering increased nutrition education to students and more fruits and vegetables in their respective lunch rooms. The districts made reference that although they are seeing an increased consumption of healthier foods including fresh fruits and vegetables, there was a negative perception towards healthy foods by both by students and staff. In one district perception by students and staff of "low-calorie" healthy foods resulted in so much negative feedback that district administrators "made healthy changes without advertising" [devious]. The negative response from peers towards healthier foods also decreased healthy food choices for students. One district and school administrator explained that

the “students were using bags of baby carrots to throw at each other” and another school explained that when students brought lunch to school, if there were healthy snacks such as an apple, their peers would give them a “look” or comment, “I cannot believe you are eating something like that.”

The expense and lack of availability of healthy foods and the availability of convenience and fast food was also a perceived barrier by all administrators. All district administrators noted the increased cost to their respective districts due to adding more fresh fruits, vegetables, whole grains, and packaging of these products. They also stressed that the cost of gas prices and reduced federal reimbursement funding had caused districts to pick up the additional food costs for healthier food offerings. Also, the lack of availability and cost of healthier food items created a financial impact to some parents and it was cheaper and more convenient to purchase less nutritious food items.

All administrators agreed that technology has made it easier to be less physically active especially for today’s students stating where it used to be “physical labor, today modern conveniences do all the work.” There was a consensus by the administrators that more students have video games, cars, computers, and one school administrator referred to kids today as “just being lazy.” “Students don’t want to be physically active because they don’t want to sweat...they want to stay inside in air conditioning or ride around on their four wheelers” [disgusted]. In addition, the lack of environmental resources such as local recreation centers has made it difficult for some students to participate in recreational activities.

State funding was also included as a barrier to increased physical activity. One school administrator expresses his frustration. He indicated because of the wellness

policy his school is offering additional wellness electives for students, however, due to decreased enrollment he was losing a health and physical education teachers stating, “It is kind of an oxymoron ...the state expects health education and wellness polices, and yet they don’t fund health and physical education positions.

The districts indicated an important barrier was lifestyles and culture have created a climate where families do not sit down for meals together concluding that there is a generation gap and that “families no longer interact with one another.” The consensus was that there are so many convenience stores and fast food restaurants that it made it nearly impossible to want to sit down and prepare a family meal and further, preparing nutritious meals takes time. The administrators agreed that today’s families are on the go and it is so easy to “grab a burger and some fried chicken, and it is just that easy...there is no clean-up, no prep time” and further stating “we grab a snack cake and glass of chocolate milk for breakfast and that is the kind of mindset that many people are in now” [expressive tone].

It was a shared belief by the administrators that most wellness policies were “very generic” and that they “really did not have any teeth to them” [shook head] and all school administrators agreed that it was a district office responsibility to evaluate the implementation of the local wellness policy. One school administrator expressed his frustration by stating, “I think this is purely a selfish response, but at this point it needs to be something that is done from the district level.”

Research Question Four

What are the potential benefits of implementing local wellness policies? The administrators overwhelmingly agreed that because of the wellness policy that schools

offered more nutritional choices and that there was an increased awareness of good health practices (Appendices Q-S). All districts made available more fresh fruits, vegetables, whole grains, and skim milk and less sugar, fat, and unhealthy snacks. The districts have also decreased fried foods and have requested that parents monitor the types of snacks and lunches they send to school and have provided parents suggestions and examples of acceptable healthy alternatives. One school made a suggestion for parents to send in fruit and low-fat muffins versus cupcakes for birthdays. Two of the three districts have discouraged parents from bringing in outside fast food to students for lunch stating, “One of the things that they have banned in our county is outside vending, allowing the students and parents to bring in items from fast food restaurants” [relief]. The school administrators also indicated that during standardized testing they provide students with low sugar healthy snacks emphasizing an increase in awareness by district and school administrators to model good nutrition and health practices. They further agreed that proper nutrition and additional physical activity increased alertness and prompted more student focus. One administrator indicated that they could “definitely tell a difference in student behavior when students are unable to be physically active” [laugh, mild tone].

Due to the local wellness policy there has been an increase in nutrition education and physical activity in each of the three districts. One district increased physical education classes for their students and no longer allows access to vending machines during the instructional day; another district is offering nutrition education classes to students in order for them to sample different types of fresh fruits, vegetables and healthy snacks, and one district increased physical activity electives for high school students adding Yoga and additional weight training. Some of the schools in each of the districts

have added aerobic classes for faculty members and have opened up their high school weight rooms and gyms for staff use.

All districts agreed that from a global perspective there is an epidemic of obesity and that there are “exorbitant prices in health care coverage” [concern]. It was a shared belief by all administrators that a potential benefit of the local wellness policies was the long-term reduction in health care costs. The wellness policies have also provided a forum for districts to promote healthy lifestyles. The districts have partnered with such organizations such as the American Heart Association and American Diabetes Association in order to promote health and fitness within their schools and communities. These partnerships have also “provide students an opportunity to be a part of a charitable organization and to show students that health, wellness, and volunteering go beyond the schools.”

Summary

The interview process provided the researcher with an opportunity to capture nine personal perspectives of local wellness policy implementation. The reality from a researcher viewpoint is that if this was a quantitative design, the researcher would not have been provided the opportunity to tell the administrators personal stories and capture the reality of what each person experienced regarding the challenges and benefits of implementing their respective local wellness policy.

All district wellness policies included the minimum necessary requirements under federal law. School administrators applauded the efforts of the district administrators; however, a disconnection was evident regarding wellness policy implementation by district administrators and the reality of what was happening in the schools. The result of

this study for challenges of implementing local wellness policy include: lack of time including parent and teacher schedules and teacher stress; vending sponsorships and profits; lack of support including training and federal and state financial support; the availability of convenience and fast foods; the costs associated with healthier foods; technology including computers and video games; increased academic and state mandates; and, family and cultural values regarding nutrition and physical activity.

The results of this study for the potential benefits of implementing local wellness polices included: an increase in nutritional food choices including more fresh fruits, vegetables, and whole grains; increased awareness and education including, students, staff, parents, and communities; long-term health benefits including decreased health care costs and healthier families and communities; healthier more alert student including higher self-esteem, reduced stress, increased attendance and academic achievement; and, an increase in physical activity including more physical education courses, student and staff aerobic and fitness classes, and more recreational activities.

There was a shared belief by all educators that the local wellness policy was an important component that provided districts with a roadmap in order to promote healthy lifestyles, increased awareness of health related issues, and promoted proper nutrition. The wellness policy has had an immediate impact with regards to changes in school lunches and increased physical education course offerings; however, the barriers districts face with regard to the loss of profits, teacher workloads, and student academic schedules compromise implementation of the local wellness policy. They further agreed that there are many benefits such as long-term benefits, healthier students, parents, communities and a healthier nation as a whole. There needs to be a clear understanding that change

takes time and communities may not see immediate results by implementing local wellness policies. One administrator summed it by stating “it is not a magic bullet ... but I think over time we will see improvements.”

CHAPTER 5

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Summary

Childhood obesity in the 21st century has become not only a concern for the health professionals, but also a crisis around the world that has raised the attention of educators, media, and policy makers alike (Moyayeri, Et al., 2006). Obesity has not only reached epidemic portions the United States, but it is also prevalent in many other countries. According to Dietz (2002), obesity warrants policy as well as environmental changes and society cannot even begin to fathom the potential intrinsic and extrinsic costs.

Results from the National Health & Nutrition Examination Survey indicate that between 1980 and 2004, obesity among children age 6-11 increased from 6.5% to 18.8% and among children age 12-19 increased from 5.0% to 17.4% (Centers for Disease Control, 2006). In the State of Georgia, overall obesity rates have increased from twelve percent (12%) in 1985, to over twenty-seven percent (27%) in 2006 (Centers for Disease Control, 2006). Obesity in children (Table 4) ages 6-11 increased from 6.5% to 18.8%; and, children ages 12-19 increased from 5.0% to 17.4% (CDC, 2004).

In an effort to reduce childhood obesity, House Bill 108-265, included in the federal Child Nutrition and Woman, Infant, and Children (WIC) Reauthorization Act of 2004, under the provisions provided in Public Law 108-265, Section 2507, required school districts to develop local wellness policies which include the following:

- Goals for nutrition education, physical activity, and other school-based activities;

- Nutrition guidelines for all foods available on each school campus during the school day with the objectives of promoting student health and promoting the reduction of childhood obesity;
- Meal reimbursement guidelines;
- Plan for measuring implementation; and,
- Input of multiple stakeholders including parents, students, school board, representatives of the school food authority, school administrators, and other members of the public.

Public school systems are in the beginning phases of developing and implementing local wellness policies. Although there have been many studies on the causes and costs of childhood obesity and there is new federal legislation that mandates local wellness policies in public schools, less is known regarding the potential challenges to and benefits for implementing wellness policies in Georgia public schools that grew out of the federal legislation. Wellness policies could be the catalyst districts need to help increase physical activity, provide opportunities for collaboration of stakeholders, and increase awareness on the importance of proper nutrition in order to promote lifetime wellness. The purpose of this study was to identify the potential challenges and benefits of implementing local wellness policies in Georgia Public Schools as stated in the overarching research question: “*What are the potential challenges to and benefits of implementing local wellness polices in Georgia Public Schools?*” and each of the sub-questions:

- 1) Who are the key stakeholders that need to be involved in order to implement local wellness policies?

- 2) How will school districts evaluate the implementation of the federal wellness policy mandates?
- 3) What are the barriers that prevent districts from implementing local wellness policies?
- 4) What are the potential benefits of implementing local wellness policies?

Data for this study were collected from a purposive sampling from one small (below 2,500 students), one medium (2,500-5,000 students), and one large school district (over 5,000 students) which were located in three different health districts within the State of Georgia. These districts also received federal funding under the National School Lunch Program (NSLP). The researcher used a qualitative design in the project in order to gain an in-depth understanding of what schools and districts were doing to implement their local wellness policies. The qualitative design provided a foundation and a deeper understanding of the research subjects that would not be possible through a quantitative approach. Once the interviews were completed, the researcher collected a copy of the local wellness policy of each district in order to examine each for the inclusion of the requirements as outlined in House Bill 108-265, in the federal Child Nutrition and Woman, Infant, and Children (WIC) Reauthorization Act of 2004.

Current research focuses on quantitative studies that address risk factors and contributors to childhood obesity. This study focused on challenges districts face when implementing local wellness policies as well as the potential benefits of implementing local wellness policies. The effective implementation and potential benefits of wellness policy implementation may have a significant impact on reducing childhood obesity and improving the overall quality of life for youth.

Analysis of Research Findings

School administrators applauded the efforts of the district administrators; however, there was a disconnection regarding the perception of the wellness policy implementation by district administrators and the reality of what was happening in the schools. The results of this study for challenges of implementing local wellness policy include the following:

- lack of time including too many requirements resulting in perceived teacher stress;
- lack of environmental resources;
- vending sponsorships and profits;
- lack of support including local training, federal and state financial support;
- availability of convenience and fast foods;
- the costs associated with healthier foods;
- technology including computers, television, and video games;
- increased academic and state mandates; and,
- family and cultural values regarding nutrition and physical activity.

There was a shared belief by all educators that the local wellness policy was an important component that provided districts with the opportunities to promote healthy lifestyles, increase awareness of health related issues, and promoted proper nutrition. The wellness policy has had an immediate impact with regard to changes in school lunches and increased physical education course offerings. The results of this study for the potential benefits of implementing local wellness polices include the following:

- an increase in nutritional food choices in schools including more fresh fruits, vegetables, and whole grains;
- increased awareness and education including, students, staff, parents, and communities;
- potential long-term health benefits including decreased health care costs and healthier families and communities;
- healthier, more alert students, including higher self-esteem, reduced stress, increased attendance and academic achievement; and,
- an increase in physical activity including more physical education courses, student and staff aerobic and fitness classes, and more recreational activities.

All district wellness policies included the minimum requirements under House Bill 108-265, contained in the federal Child Nutrition and Woman, Infant, and Children (WIC) Reauthorization Act of 2004, under the provisions provided in Public Law 108-265, Section 2507, for nutrition education, meal reimbursement guidelines, and physical activity, with the objectives of promoting student health and reducing childhood obesity. However, the three districts fell short in a plan for implementation and the lack of input from multiple stakeholders including parents, students, school board, representatives of the school food authority, school administrators, and other members of the public.

Discussion of Research Findings

Although literature for this study focuses on the obesity epidemic and causes of obesity which lead to the federal mandate for schools to implement local wellness polices, findings from this study parallel research in several areas. The discussion of

research findings will be presented in order of the four research questions to answer the overarching question “*What are the Challenges and Benefits of Implementing Local Wellness Policies in Georgia Public Schools?*”?

Research Question One

Who are the key stakeholders that need to be involved in order to implement local wellness policies? There was a shared belief by the group that multiple stakeholders were essential in order to provide input and guidance for local wellness policy implementation. These included, but were not limited to, parents, students, school board members, school nutrition, school administrators, and community partners. The theoretical framework for this study was adapted from the socio-ecological model developed by McLeroy et al. (1988). This model reflects the relationship of policy attempts to promote public awareness of a topic, in this study obesity, to the roles each segment plays with respect to community, organizational structures, interpersonal, and self. McLeroy identifies the important role each stakeholder plays in order to create change. In this study, a breakdown occurred in the process due to a lack of a plan outlining how each district was going to engage stakeholders and a lack of clarification of the roles and responsibilities of each stakeholder. One district administrator indicated that, “We did not get very much response from the community, nor did we get much response from the students” [upset] Owens (2000) stresses the importance of recognizing the strengths and weakness of the stakeholders and the importance of identifying how each will be engaged in the process in order to help increase the effectiveness of a plan. While the individuals in this study indicated that it was important to engage multiple stakeholders, because there was not a plan in place for local wellness policy

implementation, it lead to no implementation - one school administrator indicating, "...that we are not readily willing to comply fully with the policy, simply because we have not been included at the table on the discussion" [strong tone].

Research Question Two

How will school districts evaluate the implementation of the federal wellness policy mandates? The overall results of three district wellness policies reviewed in this study indicated that wellness policies were written to satisfy the federal guidelines, and there were minimal processes in place for implementation and none for monitoring evaluation. Only one district wellness coordinator indicated they monitored the implementation; however, it was minimal. One district administrator indicated, "It (the policy) was very generic;" another district administrator said, "They gave it to the board and I have not heard another thing" [nonchalant]. A recent study on local wellness policies by the Action for Healthy Kids indicated the overall results of 112 local wellness policies found that 46% of the districts did not meet the local wellness policy requirements as outlined in the federal mandates (2007). This research finding was reinforced when one district administrator indicated to the researcher that "remember, when you first called, I did not know what you were talking about" [surprised].

Research conducted by the Institute of Medicine (2007) further supports the importance of having a plan and an evaluation design. Fowler (2000) presents seven steps for evaluating policies. These include the following: determining the goals; selecting indicators, develop data-collection instruments; collecting, analyzing and summarizing data; writing evaluation reports; and, responding to evaluators' recommendations. No district in this study had a plan in place to collect data or to

analyze the effectiveness of their local wellness policy; in fact, it was a shared belief by the administrators that most wellness policies “really did not have any teeth to them” and all agreed that it was a district office responsibility to evaluate the implementation of the local wellness policy.

Although all of the districts in this study had addressed each of the five required areas of the local wellness policy mandate, none of the districts had an action plan in place to measure the effectiveness of implementation. According to Fowler (2007) the implementation of a new policy will fall on the individuals required to put the policy into practice; whereas one administrator summed it up by telling the researcher, “Our purpose was to write the plan; the implementation, I am not aware of.”

Research Question Three

What are the barriers that prevent districts from implementing their local wellness policies. The availability of the non-nutritional foods from student stores and vending during the instructional day was a barrier identified in this study which supports Davy, Harrell, Stewart, & King (2004) that the availability of non-nutritional snacks and soft drinks through vending during the instructional day impacts daily caloric intake and replaces nutritional foods for students. One school indicated, “We sell the things the children will buy; we do sell sugar sodas and candy bars. Even the school that had additional measures in place for nutrition education was providing honey buns as a breakfast food item. This was a key finding because it highlighted the grave concern expressed by all districts about the potential loss of revenue by the vending machines. No district was willing to sacrifice these profits to replace the offerings with more nutritious snacks. French, Jeffery, Story, Breitlow, Baxter, Hannan, and Snyder (2001)

suggest offering low calorie and low fat snacks and lowering the prices of healthy snacks as an alternative way to promote healthy food choices in school vending machines.

The availability of fast food was also seen as a barrier which was reported by the administrators as a contributing factor to poorer nutritional habits and food choices by families. While most respondents agreed that they had control over the items they served in the lunch rooms, in all three districts with the exception of one school, parents were allowed to bring lunch to students. It was noted by the researcher that in one of the districts there were only three choices for fast food; one convenience store and two fast food restaurants. Research by the American Heart Association and the Robert Wood Johnson Foundation (2007) supports this finding indicating the number of fast food outlets in the United States increased from 30,000 to 140,000, and spending in these fast food restaurants has increased by over three-hundred percent over the last three decades. Further, by the 1990's over forty percent (40%) of total food costs were spent eating away from home. One administrator indicated we are, "...on the go, let's grab a burger and some fried chicken, and it is just that easy...there is no clean-up, no prep time" [strong tone].

Another barrier found in this study indicated there was a lack of environmental resources available to students and this has contributed to decreased physical activity. One person told the researcher that in their community there were "no playgrounds or recreational facilities for our kids to use" [concern]. This is supported by a study conducted by Gortmaker (2002) which indicated that the lack of access to safe environmental resources for children is a contributing factor to decreased physical activity and increased overweight and obesity among children.

It was a belief by all administrators that modern conveniences, such as air conditioning, computers, television, and video games have prompted kids to stay inside thus another contributing factor leading to decreased physical activity and promoting sedentary lifestyles. One of the school administrators plainly indicated that kids today "...are lazy; they don't want sweat" [disgusted]. Research by Dietz and Gortmaker (1985), Hancox, (2004), Kaiser Foundation (2006), Proctor, et al. (2003), support that modern conveniences, such as television, increases body fat percentages and that increased television viewing also increases the risk of poorer food choices. Also, according to the Kaiser Foundation (2006) due to the fact that children are inside playing video games and watching television they are subjected to increased advertisements which target foods that include a large percentage of non-beneficial caloric items such as candy, sodas, and fast food. This supports what Utter, Scragg, and Schaaf (2006) found that advertising influences the frequency of the children's choices to drink more soda and eat fewer nutritious snacks.

Family and societal values were also cited as an obstacle for implementing local wellness policies. All of the interviewees agreed that lifestyles and culture have created a climate where families do not sit down for meals together. The attitudes toward southern food seemed to dominate the conversation during most interviews. Many indicated that, "You cannot take away our fried chicken, butter, grits, and collared greens." Everyone agreed that the parents need to take an active role and model good nutritional and physically active lifestyles. Studies by Jansen et al (2005), Dietz (2004), Rowlett (2006) support that childhood obesity is a precursor which could lead to adulthood overweight and that family eating habits and lifestyles are contributing factors

that may lead to adult obesity. Wright et al (2001) further found that obese children were five to nine times more likely to become obese adults with the increase in adolescent related health risks.

All persons interviewed were concerned that their teachers did not have enough time in the day for academics let alone time in the day for increased physical activities. The respondents further discussed how increased academic requirements and local requirements have put "...too much on teachers' plates and nothing was coming off" [concern, upset]. This reflects the beliefs of Katz (2006) where he indicated that increased federal mandates have placed increasingly more pressures on school systems for student academic achievement and accountability; therefore, school officials are "...reducing the amount of time for physical education in order to gain more time for the academic subjects specified in the 'No Child Left Behind' (NCLB) legislation" (p. 144). One administrator shared a story where he had created a physical education teacher position to coordinate the wellness policy implementation in his school, but then his enrollment dropped and the physical education teaching position was eliminated. This decreased the number of students taking physical education classes to approximately 20% with students only receiving physical education for one semester in either 9th or 10th grade. This level is below the 46% reported by the Centers for Disease Control (2003) for high school students enrolled in physical education classes. The administrator observed, "They can't talk out of both sides of their mouth...if the state is going to get involved and expect these changes, then they better do something about it other than talk."

Research Question Four

What are the potential benefits of implementing local wellness policies? Former United States Surgeon General David Satcher remarked "...we see a nation of young people seriously at risk of starting out obese and dooming themselves to the difficult tasks of overcoming a tough illness" (Crisler, 2003). It was a shared belief by the group that one of the potential benefits of local wellness policies was that physical activity and proper nutrition could lead to more focused learning and increased academic achievement. Four separate studies, three on the integration of physical activity into the academic curriculum, Jenson (1998) Lewis et al (2006), and Meyer et al (2006) found that energy expenditure was evident in children who engaged in daily physical education and further, these children showed superior motor fitness, academic performance, and better attitudes toward school as compared to counterparts who did not participate in daily physical education. One study on the effects of proper diet (Kim et al 2003), found a direct relationship between a proper diet and academic performance.

Another potential benefit was increased self-esteem. Research by both the Secretary of Health and Human Services and Secretary of Education (2000) indicated due to its positive effect on mental health, physical activity may help increase a students' capacity for learning. This observation was supported by the 1996 U.S. Surgeon General's Report on Physical Activity and Health which indicated that "physical activity contributes to improved self-esteem and lessens symptoms of depression" (p. 243). One administrator shared a story of one child's battle with obesity. This child, he reported, is borderline obese and it is a daily struggle with peers; they are very self-conscious – "I know there are things going on in their mind." This finding supports research by Rowlett

(2006), Swallen, et al. (2005), and Sjoberg, et al (2005) which reported that children that are overweight have increased social and emotional problems and further, obesity was “...significantly related to depression and depression symptoms and lower self-esteem, and are often the victims of bullying at their schools” (649).

Another potential benefit shared by the group was that local wellness policies increased the awareness of childhood obesity, and this has led to the availability of increased educational materials and media resources provided by national organizations such as the American Heart Association and the American Diabetes Association. In addition, one school administrator mentioned how these partnerships have also taught students, “...life lessons of giving and doing for others” [appreciative]. All of the districts had offered some type of educational awareness sessions to students, staff, and parents on diseases such as diabetes, high blood pressure, cancer, and heart disease all of which were cited by the National Center for Health Statistics (2007) as potential health risks from being overweight. Everyone agreed that it was important for schools and communities to begin to think of the potential benefits of implementing local wellness policies and be cognizant of the potential short and long-term health risks associated with obesity. Wolf & Coldits (1998) found that obesity accounted for over 62.6 million doctor visits which were associated with an estimated 39.2 million days of missed work with a projected cost of 3.9 billion dollars lost in productivity. Many in the group believed the potential benefits could have a spiral effect, one administrator stating that local wellness policy implementation and awareness may lead to “...less missed school and work, healthier students, increased graduation rates, better citizens in communities, decreased health care costs, and a healthier society as a whole” [strong voice].

Conclusions

The lack of physical fitness and sound nutrition of youth has gained national and international awareness due to the significant increase of obese and overweight children in the world which now exceeds 155 million children age 5-19 years (Lobstein, et al, 2004). According to Dietz (2000), every country that has collected longitudinal data has found an increased prevalence of childhood obesity. Childhood obesity has become a concern for the health professionals and has raised the attention of educators, media, and policy makers (Moyayeri, et al, 2006). In an article published by the *China Daily*, Ricardo Uauy, President of the International Union of Nutrition Sciences, stated, “We need urgent action; we need it now.”

There was a shared belief by all administrators that the local wellness policy was an important venue that provided districts with a roadmap in order to promote increase awareness on the health risks associated with obesity. The local wellness policies had an immediate impact with regard to nutritional changes in schools, an increase in health and physical education classes, and an increase in physical activity programs for students, staff and parents. They further agreed that there were many potential long-term benefits including the reduction of health care costs, healthier students, parents, communities, and a healthier nation as a whole.

It was believed by the group that as a direct result of local wellness policies there were improved nutritional offerings and increased physical activity, and all believed that diet and physical activity impacted academic achievement. These beliefs are supported by findings by Jenson (1998), Kim et al (2003), Lewis et al (2006), and Meyer et al (2006) in four separate studies that there is a direct relationship between a proper diet and

academic performance and further, children who engage in daily physical education show superior motor fitness, academic performance, and attitude toward school.

The concerns districts expressed with regard to the loss of profits from vending, heavy teacher workloads, increased academic requirements, lack of availability of community resources, and cultural and family values towards physical activity and food choices, were challenges that districts faced when implementing local wellness policies. It was because of these issues and lack of will to address these concerns that the districts were not implementing local wellness policies and only doing what was required as written by law in order to get through the process.

Everyone interviewed emphasized the belief that proper nutrition and physical activity were important, and further, the effective implementation and potential benefits of wellness policy implementation might have a significant impact on reducing childhood obesity and improving the overall quality of life for youth.

Implications

Although all districts had a written policy, there was a lack of a plan for implementation at all levels. Based on this study, there is a need to help districts develop creative ways to incorporate the mandates of local wellness policies into the instructional day. In addition, there needs to be a clear understanding of the roles and responsibilities of the all stakeholders and how each will participate in local wellness policy implementation.

Findings that all persons interviewed believed physical activity and a proper diet can improve academic achievement (Jenson, 1998; Kim et al, 2003; Lewis et al, 2006;

and Meyer et al, 2006) reinforce the importance of incorporating healthy food choices and physical education into the instructional day.

Findings that there is no state or federal funding to support the local wellness policy initiative lends support to lobby legislators to provide financial and technical support in order to implement the required federal mandates.

Further implications from this study indicate that administrators have a high concern regarding loss of vending profits. The average school profits in this study were approximately \$10,000. Understanding this concern, districts need to seek alternative ways to fund the activities associated with vending machine profits. One could even complete a study on the amount of income districts receive and how these funds are being utilized.

Recommendations

Based on the data collected from the interviews and document analysis in this study, it would be recommended by the researcher that teachers be included as part of a new study in order to gain another perspective regarding challenges and benefits of local wellness policy implementation.

Due to the increased focus on academic achievement and the subsequent increased stress of teachers as indicated by this study, there needs to be an action plan for implementation of local wellness policies that incorporates measurable objectives. These objectives should focus on what is written in the policy but should also help teachers incorporate wellness objectives into the daily curriculum which would put policy into action (Fowler, 2000).

Due to the poor nutritional quality of food commodities provided to school districts by the United States Department of Agriculture (USDA), mixed messages regarding nutrition were being sent by the federal government. It is recommended districts lobby the federal government to provide products which are not full of nitrates and fats.

It is further recommended that a longitudinal study on wellness policy implementation be completed in order to determine the impact on physical activity, nutrition, and academic achievement.

In view of the fact that local wellness policies have only been place since the fall of 2006, the researcher recommends that districts collaborate in order to share successes they experienced during the last year and a half, and to review the challenges and benefits in this study in order to develop procedures for districts to use in order to disseminate information as a guide for local wellness policy implementation.

Dissemination

As a direct result of conducting this study, the researcher had an opportunity to make two presentations on childhood obesity and local wellness policies, one for teachers and one for parents, during the 10th Annual Middle Grades Collaborative Regional Conference in November. It is the intent of the researcher to present the findings of this study during the Middle Grades Conference in the coming year.

In March 2008, the researcher led a panel discussion on childhood obesity at the Georgia Southern Youth-at-Risk Conference in Savannah, Georgia; it is the intent of the researcher to present these findings at next years Youth-at-Risk conference.

The researcher will submit an article for publication to the American Alliance of Health, Physical Education, Recreation, and Dance (AAHPERD) and intends to submit a proposal to present at the 2009 AAHPERD National Conference and the Georgia Alliance for Health, Physical Education Recreation and Dance fall conference.

The researcher had the opportunity to write and receive a Technical Assistance Grant through the American Association of School Administrators and the National League of Cities funded by the Robert Wood Johnson Foundation for the Collaboration between City and Schools on Local Wellness Policies; the researcher intends to submit an article to the aforementioned organizations with the hope of reducing the challenges of wellness policy implementation.

The intent of this study is not only to present the findings but to develop implementation guidelines and/or revise an existing Wellness Policy Fundamentals Checklist or checklist so that districts have a clear understanding of the expectations of local wellness policies and a succinct plan for implementation and assessment.

Concluding Thoughts

Sound in Body; Sound in Mind

...Hippocrates

The interview process provided the researcher with an opportunity to capture nine personal perspectives of local wellness policy implementation. The reality from a researcher viewpoint is that if this was a quantitative design, the researcher would not have been afforded the opportunity to tell the personal stories and capture the reality of what each person experienced regarding the challenges and benefits of implementing local wellness policies. The researcher is the individual in her district that oversees the local wellness policy implementation process. The researcher was drawn to this study

because the researcher was facing the some of the same concerns as the persons interviewed. The following final words are not those of the researcher but are excerpts from the transcripts which represent the most powerful reward from this study, taking action.

“I realize that I need to go back and read through our policy and seek into finding what it is really about so I can make a difference in our community.” - District Administrator

“I would love to expand on this, so that we can begin making head-way into these issues.” – School Administrator

“When I saw your e-mail, I thought I better pull the policy out – we don’t want to be fired up on Monday, then by Wednesday it is back on the shelf...we need to keep it fresh in our minds.” – School Administrator

“This interview helped me realize that we need to be doing more, so we will be making an effort to do that.” District Administrator

“One thing, just as a result of the conversation, I will find out what we are really doing with physical activity in terms of recess and physical education and do a little more reading on the wellness policy, even do something about it!” - District Administrator

“Thank you, this interview has heightened my awareness that there is something more I am supposed to be doing.” District Administrator

“Because we have had this conversation, it has made me realize that I need to take a more in-depth look and pay a little bit more attention of what is going on in the building with regards to the local wellness policy...this has been great!” - School Administrator

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APPENDIX A

MCLEROY PERMISSION LEETER, SOCIO-ECOLOGICAL MODEL

From: McLeroy, Kenneth R. [mailto:KMcleroy@██████████]
Sent: Saturday, October 27, 2007 12:46 PM
To: Shawn and Michele Hartzell
Subject: RE: URGENT - Socio-ecological model

Michele:

You have my permission to use the model. You may want to consider adding two other levels apart from evaluation; they would be the culture and the physical environment.

If you need to reach me, my direct dial phone number is ██████████.

Regards

-Ken McLeroy

From: Shawn and Michele Hartzell [mailto:shawnandmichele██████████]
Sent: Sat 10/27/2007 11:33 AM
To: kenneth-r-mcleroy██████████
Cc: 'Michele Hartzell'
Subject: URGENT - Socio-ecological model

Good Morning!

Dr. McLeroy,

I am a doctoral student at Georgia Southern University. I am working on my dissertation and I am using the socio-ecological model as my theoretical framework. I would like your permission to produce the model in my paper (I have included this section below for your review). In addition, I would like to add one more level that includes an evaluation/accountability component. If additional information is required, please feel free to contact me on my cell number listed below.

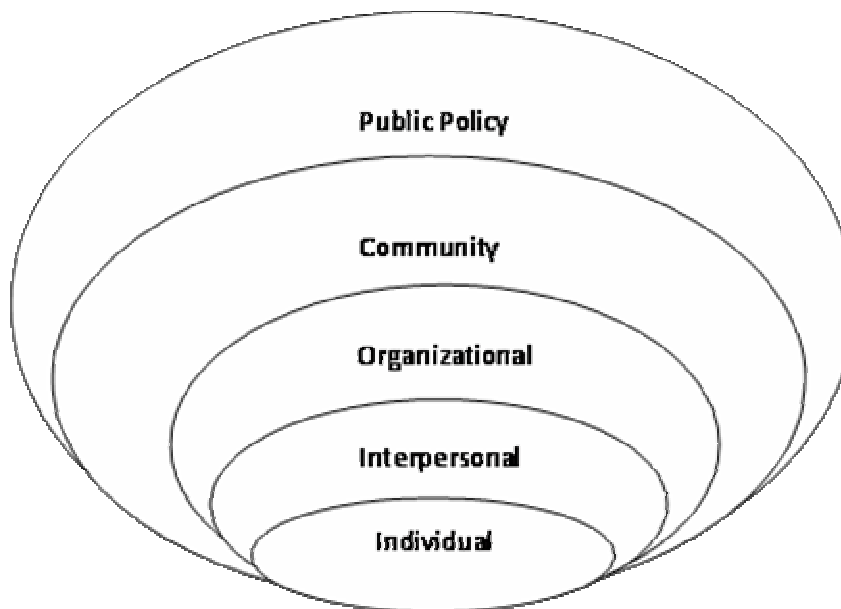
Your attention and response would be greatly appreciated.

Sincerely,

Michele

Michele Spurgeon Hartzell
██████████
██████████

Theoretical Framework



The theoretical framework for this study comes from the socio-ecological model developed by McLeroy et al. (1988). This model reflects the relationship of policy attempts to promote public awareness of a topic to the roles each segment plays with respect to community, organizational structures, interpersonal, and self. Increased public awareness of obesity prompted federal legislation. This legislation led to mandates that schools adopt local wellness policies. The local wellness policies utilize the organization as the mechanism to create change. The change begins with the attitudes and beliefs of the individual and their perceptions based on their relationship with family, friends and social networks.

APPENDIX B

WELLNESS POLICY FUNDAMENTALS CHECKLIST



The Wellness Policy Fundamentals Checklist

State:
District:
Size:

<i>Regulations</i>
Are there supporting regulations that expand on the policy and give it increased specificity? <input type="checkbox"/> YES <input type="checkbox"/> NO If yes, all questions below should encompass both policy and its supporting regulations.
<i>Content</i>
1. Nutrition Education -grade level _____ Check if addressed in policy <input type="checkbox"/> teacher training <input type="checkbox"/> education outside the classroom linked to school <input type="checkbox"/> aligned with other health education
2. Physical Education and Activity -grade level _____ -hours of P.E. _____ -credits of P.E. _____ -teacher-to-student ratio _____ -qualifications of P.E. staff _____ -hours outside P.E. for other physical activity _____ Check if addressed in policy <input type="checkbox"/> aligned to national standards <input type="checkbox"/> recess <input type="checkbox"/> walk/bike to school
3. Nutrition Standards -what venues are covered (Check if addressed in policy) <input type="checkbox"/> a la carte <input type="checkbox"/> vending <input type="checkbox"/> school/student stores <input type="checkbox"/> concession stands <input type="checkbox"/> field trips <input type="checkbox"/> after school programs <input type="checkbox"/> school events <input type="checkbox"/> meetings <input type="checkbox"/> food-related fundraising <input type="checkbox"/> parties/celebrations <input type="checkbox"/> food rewards <input type="checkbox"/> beverage contracts <input type="checkbox"/> classroom snacks <input type="checkbox"/> standards reflect dietary guidelines <input type="checkbox"/> standards exceed minimum guidelines <input type="checkbox"/> portion sizes <input type="checkbox"/> nutrition information available on products served

<p>4. School meals</p> <p>-grade level _____</p> <p>-time for meals _____</p> <p>-schedule for meals _____</p> <p>-qualifications of food service staff _____</p> <p><input type="checkbox"/> access to breakfast <input type="checkbox"/> access to lunch <input type="checkbox"/> access to afterschool snacks</p> <p><input type="checkbox"/> recess before lunch</p> <p><input type="checkbox"/> standards reflect dietary guidelines</p> <p><input type="checkbox"/> standards exceed minimum guidelines</p> <p><input type="checkbox"/> portion sizes</p> <p><input type="checkbox"/> nutrition information available on products served</p> <p><input type="checkbox"/> accommodations made for religious, ethnic, and cultural diversity</p>
<p>5. Other school health <i>(check if addressed in policy)</i></p> <p><input type="checkbox"/> Surroundings for eating</p> <p><input type="checkbox"/> Marketing of food/beverages</p> <p><input type="checkbox"/> Sustainable food practices</p> <p><input type="checkbox"/> Coordinated school health approach</p> <p><input type="checkbox"/> School health council/wellness team</p> <p><input type="checkbox"/> Community/family involvement</p> <p><input type="checkbox"/> Staff wellness</p> <p><input type="checkbox"/> Counseling, psychological, social health</p> <p><input type="checkbox"/> Health services</p> <p><input type="checkbox"/> Smoking/tobacco</p>
Implementation
<p>Who is responsible for implementation?</p> <p>_____</p> <p>What is the time frame for implementation?</p> <p>_____</p> <p>How will implementation be tracked?</p> <p>_____</p>
Measurability/Evaluation
<p>Does the policy and/or the regulations contain measurable objectives? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>Has a process been identified for evaluation? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>Who is responsible for evaluation?</p> <p>_____</p> <p>Has a tool been identified for measuring changes in the environment (such as the School Health Index)? <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>Is there funding support for the policy? <input type="checkbox"/> YES <input type="checkbox"/> NO</p>

APPENDIX C

ACTION FOR HEALTHY KIDS PERMISSION LETTER

Action for Healthy Kids,

4711 West Golf Road, Suite 625 Skokie, Illinois 60076 800-418-5138 847-329-1849 fax w.ActionForHealthyKids.org

David Satcher, MD, PhD
 Director, Center of Excellence on Health Disparities
 Pousaint-Cosby-Satcher Chair in Mental Health
 Morehouse School of Medicine
 16th United States Surgeon General

Judy Young, PhD
 Vice President for Programs
 American Alliance for Health, Physical Education,
 Recreation and Dance

Reginald L. Washington, MD
 Medical Director
 Rocky Mountain Pediatric Cardiology
 Professor of Pediatric Cardiology
 University of Colorado Health Sciences Center

Jean Ragalie, RD
 Executive Vice President
 Nutrition Corporate and Public Affairs
 National Dairy Council

Kimberley Goode
 Vice President
 Corporate Communications
 Vistage Corporation

Roger Goodell
 Commissioner
 National Football League

Katherine Kauter Christoffel, MD, MPH
 Professor of Pediatrics and Preventive Medicine
 Northwestern University, Feinberg School of Medicine
 Director, Center on Obesity Management and Prevention
 Children's Memorial Hospital

Vicki Perkins
 Assistant Executive Vice President
 American College of Sports Medicine

John W. Haway, MD
 Professor, Columbia University
 Mailman School of Public Health
 Department of Health Policy and Management

Nicholas Valeriani
 Equipping Committee, Worldwide Chairman
 Cardiovascular Diagnostics and Devices
 Johnson & Johnson

July 5, 2007

To Whom It May Concern:

Action for Healthy Kids is a national grassroots organization committed to providing resources to support schools in efforts to implement wellness practices of sound nutrition and good physical activity. To gain an understanding of what Local Wellness Policies include, Action for Healthy Kids collected and assessed a national sample of Local Wellness Policies that were approved and available by the July 1, 2006 deadline.

Policies were first assessed for each area that is to be included as a minimum requirement of the federal mandate. Next, policies were assessed for their quality using the "Wellness Policy Fundamentals", part of the Wellness Policy Tool developed by Action for Healthy Kids and its Partner organizations. Those organizations include the Centers for Disease Control and Prevention, Division of Adolescent and School Health, U.S. Department of Agriculture, National Association for Sport and Physical Education, School Nutrition Association, and the Food Research Action Council.

We grant permission to Michele Spurgeon Hartzell, Ed.S. to use the Wellness Policy Fundamentals Checklist (see attached) for her dissertation on wellness policies and implementation.

Please contact me at 301-592-1271 if you have any questions.

Best regards,



Nora L. Howley
 Interim Executive Director
 Action for Healthy Kids

Attachment enclosed

APPENDIX D
TRANSCRIPTION CODE KEY

Transcription Code Key

Category	Code	Category/Code
1. Stakeholders (SH)	SH	
1.1. Community Partners (CP)		1.1 SH/CP
1.2. School Personnel (SP)		1.2 SH/SP
1.3. District/Board Administrators (DA)		1.3 SH/DA
1.4. Parents (PA)		1.4 SH/PA
1.5. Students (ST)		1.5 SH/ST
1.6. Health/Recreation Departments (HR)		1.6 SH/HR
1.7. Government Agencies (GA)		1.7 SH/GA
2. Evaluation Process (EP)	EP	
2.1. No Formal Assessments for PE (NP)		2.1 EP/NP
2.2. Only Federal Nutrition Requirements (ON)		2.2 EP/ON
2.3. Don't Know/Not Sure (DK)		2.3 EP/DK
2.4. Not Monitored (NM)		2.4 EP/NM
2.5. District Responsibility (DR)		2.5 EP/DR
2.6. Only State PE Requirements (SPE)		2.6 EP/SPE
2.7. Limited Assessments (LA)		2.7 EP/LA
2.8. PE Assessment in Place (PE)		2.8 EP/PE
2.9. Nothing Nutrition Education (NN)		2.9 EP/NN
3. Challenges/Barriers (CB)	CB	
3.1. Family Values/Habits (FV)		3.1 CB/FV
3.2. Availability Fast/Convenient Foods (FF)		3.2 CB/FF
3.3. Time/Too Much on Plate (TP)		3.3 CB/TP
3.4. Corporate Sponsors/Vending Profits(CSV)		3.4 CB/CSV
3.5. Cultural Values/Circumstances (CC)		3.5 CB/CC
3.6. Lack of Funding/Resources (LF)		3.6 CB/LF
3.7. Academic Requirements/Mandates (AR)		3.7 CB/AR
3.8. Health Issues Not Important/Priority (HI)		3.8 CB/HI
3.9. Expense/Access to Healthy Foods (EA)		3.9 CB/EA
3.10. Lack of Training/Education (LT)		3.10 CB/LT
3.11. Lack of Support/Buy-in/Commitment (LS)		3.11 CB/LS
3.12. Technology (TE)		3.12 CB/TE
3.13. Lack of Environmental Resources (LR)		3.13 CB/LR
3.14. Work Ethic (WE)		3.14 CB/WE

4. Benefits (BE)	BE	
4.1. Increased Nutritional Choices (NC)		4.1 BE/NC
4.2. Increased Awareness/Education (IE)		4.2 BE/IE
4.3. Increased Physical Activity (IP)		4.3 BE/IP
4.4. Long-Term Health Benefits/Habits (LT)		4.4 BE/LT
4.5. Healthier/Alert Students (HS)		4.5 BE/HS
4.6. Healthier Communities/Families (HF)		4.6 BE/HF
4.7. Increased Academic Achievement (AA)		4.7 BE/AA
4.8. Reduction of Health Care Costs (RH)		4.8 BE/RH
4.9. Increased Attendance (IA)		4.9 BE/IA
4.10. Higher Self-Esteem/Reduce Stress (SE)		4.10 BE/SE

APPENDIX E
INTERVIEW QUESTIONS

Date:

Beginning/Ending Time:

Participant:

Interviewer: Michele Spurgeon Hartzell

Transcriber: Michele Spurgeon Hartzell

I: Thank you for being here today. Before we get started, I must include a brief consent statement. As you are aware, I am working on my doctoral degree at Georgia Southern University. All information contained in this interview will be analyzed by me and kept confidential. This project is for research and educational purposes only. Your identity will be protected, and when the project is published it will contain pseudonyms, i.e. fake names. There is no expectation of harm, discomfort or stress; however, some persons may feel uncomfortable with the subject content. If at any time you feel uncomfortable during the interview process, you may decline to respond and, if necessary, stop participating without consequence. Do I have your permission to continue?

***Q1 (RQ 4)**

I: In your opinion, why were wellness policies were put into place?

***Q2 (RQ 4)**

I: Do you think wellness policies will impact the children in your district?

***Q3 (RQ 4)**

I: Do you feel that the school years are a formative period when attitudes towards lifetime wellness practices are developed?

***Q4 (RQ 2)**

I: What action steps have you taken to implement the requirements of your local wellness policy?

***Q5 (RQ1, 2)**

I: What was your district's process in presenting your wellness policy to your local school Board?

***Q6 (RQ 2)**

I: The wellness policy is an implementation policy. It requires in May of each year that districts report on the progress of implementation to the State. What type of information is included in your district report?

***Q7 (RQ 1)**

I: Are there other stakeholders you think that need to be involved in order to implement the local wellness policy in your district?

***Q8 (RQ1)**

I: Is your district doing anything to engage community organizations? What things have you one? In what ways is your district engaging community organizations in supporting your efforts to implement your local wellness policy?

***Q9 (RQ 1)**

I: Could you describe the opportunities your district provided to your parents and community to bring about awareness of the requirements of the local wellness policy?

***Q10 (RQ 2)**

I: Describe what your district has done to change the type of food and drinks schools offers to students during the instructional day? Have there been any changes in the type of food and/or drinks served during district meetings/events for employees or parents?

***Q11 (RQ 3)**

I: What is preventing your district/school, if anything, from offering more nutritional snacks, fresh fruits and vegetables, and water?

***Q12 (RQ 3)**

I: Some districts/schools have run into issues in trying to eliminate unhealthy foods from their campuses because the company's that sell them provide financial support, scholarships, and awards to the school(s). Have you encountered any problems with this?

***Q13 (RQ 2)**

I: With the No Child Left Behind Mandates and the State guidelines on the required amounts of time to be spent on academics; what types of tools such as rubrics, body mass index, or surveys has your district implemented in order to evaluate physical activity, nutrition education, meal reimbursement guidelines, and measure the reduction of childhood obesity?

***Q14 (RQ 3)**

Do you think your district will incorporate additional evaluation tools? Explain how your district is monitoring or will monitor the implementation of your local wellness policy?

***Q15 (RQ 3)**

I: Has your district sought technical assistance for wellness policy implementation? For what? What resources have you used?

***Q16 (RQ 2)**

I: Although wellness policy implementation is a federal requirement, currently there are no consequences if districts do not comply. Is your district taking any steps to ensure the local wellness policy is implemented? If so, what steps?

***Q17 (RQ 3)**

I: Is there anything preventing you from implementing your local wellness policy? What? What would you need?

***Q18 (RQ 4)**

I: Do you think there are the potential benefits of implementing the local wellness policy? What?

I: *Thank you for taking the time and sharing your thoughts with me, they were greatly appreciated.*

APPENDIX F
INFORMED CONSENT

GEORGIA SOUTHERN UNIVERSITY
COLLEGE OF EDUCATION

DEPARTMENT OF LEADERSHIP, TECHNOLOGY AND HUMAN
DEVELOPMENT

INFORMED CONSENT

1. My name is Michele S. Hartzell; I am conducting this research as part of doctorate requirements for my dissertation.
2. Purpose of the Study: The purpose of this research is to understand the potential challenges and benefits of implementing wellness policies in Georgia Public Schools.
3. Procedures to be followed: Participation in this research will require a 1-1 ½ hour interview at a location selected by the participant. The discussion will focus on developed questions vetted by my dissertation committee regarding wellness policy implementation.
4. Benefits:
 - a. Participants. This study will provide participants with background information that identifies the potential challenges and benefits during the implementation of local wellness policies and help to identify a collaborative approach to implement local wellness policies.
 - b. Society. This information can be used by school districts for consideration during planning in order to help achieve the desired federal outcome of improved health and a reduction in childhood obesity.
5. Duration/Time: November 2007 through February 2008
6. Statement of Confidentiality: Names, job titles, and school district of the participants will be captured in the data. Specific names of the participants or specific school names or districts will not appear in my dissertation. Data will be correlated only to the identification of the subjects by codes and participants will be given pseudonyms. Once my dissertation has been accepted and approved, all individual and district names as well as job titles will be destroyed.

7. **Right to Ask Questions:** Participants have the right to ask questions and have those questions answered. If you have questions about this study, please contact the researcher named above or the researcher's faculty advisor, whose contact information is located at the end of the informed consent. For questions concerning your rights as a research participant, contact Georgia Southern University Office of Research Services and Sponsored Programs at 912-681-0843.
8. **Voluntary Participation:** Participation is voluntary and participants may stop the interview process at anytime without penalty.
9. **Penalty:** A participant may withdraw at anytime without penalty or retribution.
10. **Participants must be 18 years of age or older to consent to participate in this research study.** If you consent to participate in this research study and to the terms above, please sign your name and indicate the date below.

You will be given a copy of this consent form to keep for your records.

Title of Project: Obesity: Challenges and Benefits of Implementing Local Wellness Policies in Georgia Public Schools

Principal Investigator: Michele Spurgeon Hartzell

[REDACTED]
Savannah, GA 31419

Faculty Advisor: Dr. Charles A. Reavis
Georgia Southern University
P.O. Box 8131
Statesboro, GA 30460-8131

Participant Signature

Date

I, the undersigned, verify that the above informed consent procedure has been followed.

Investigator Signature

Date

APPENDIX G

DRAFT – INTERVIEW QUESTIONS

Date:

Beginning/Ending Time:

Participant:

Interviewer: Michele Spurgeon Hartzell

Transcriber: Michele Spurgeon Hartzell

I: Thank you for being here today. Before we get started, I must include a brief consent statement. As you are aware, I am working on my doctoral degree at Georgia Southern University. All information contained in this interview will be analyzed by me and kept confidential. This project is for research and educational purposes only. Your identity will be protected, and when the project is published it will contain pseudonyms, i.e. fake names. There is no expectation of harm, discomfort or stress; however, some persons may feel uncomfortable with the subject content. If at any time you feel uncomfortable during the interview process, you may decline to respond and, if necessary, stop participating without consequence. Do I have your permission to continue?

***Q1**

~~**I:** I would like to start off by asking you to tell me what you think about the wellness policy.~~

***Q2 (RQ 4)**

~~**I.** Why do you feel wellness policies were put into place?~~

***Q3 (RQ 4)**

~~**I:** Do you think wellness policies will impact the children in your district?~~

***Q4 (RQ 2)**

I: What action steps have you taken to implement the requirements of your local wellness policy?

***Q5 (RQ1, 2)**

I: What was your district's process in presenting your wellness policy to your local school Board?

***Q6 (RQ 2)**

I: The wellness policy is an implementation policy. It requires in May of each year that districts report on the progress of implementation to the State. What type of information is included in your district report?

***Q7 (RQ 1)**

I: Are there other stakeholders you think that need to be involved in order to implement the local wellness policy in your district?

***Q8 (RQ1)**

I: ~~Is your district doing anything to engage community organizations? What things have you done?~~ In what ways is your district engaging community organizations in supporting your efforts to implement your local wellness policy?

***Q9 (RQ 2)**

I: What steps has your district taken to comply with the nutrition guidelines and the American Beverage Association guidelines and recommendations for drinks and food in schools?

***Q10 (RQ 3)**

I: Many schools are dependent upon the sales from vending machines for academic awards, athletics, etc. Have schools experienced any changes with regards to sales from vending machines? If so, could you explain these changes?

***Q11 (RQ 2)**

I: With the No Child Left Behind Mandates and the State guidelines on the required amounts of time to be spent on academics; ~~How is your district incorporating the health and physical education requirements?~~

***Q12 (RQ 1)**

I: Could you describe to me the opportunities you provide to your community to bring about awareness of the requirements of the local wellness policy?

***Q13 (RQ 3,4)**

I: ~~Has your~~ district sought technical assistance for wellness policy implementation? What information?

***Q14 (RQ 2)**

I: Although wellness policy implementation is a federal requirement, currently there are no consequences if districts do not comply. What steps is your district taking to ensure the local wellness policy is implemented?

***Q15 (RQ 4)**

I: ~~Do you feel that~~ the school years are a formative period when attitudes towards lifetime wellness practices are developed? Move up

***Q16 (RQ 3)**

I: ~~Is there~~ anything preventing you from implementing your local wellness policy?

***Q17 (RQ 4)**

I: What do you think are the potential benefits of implementing the local wellness policy?

I: *Thank you for taking the time and sharing your thoughts with me, they were greatly appreciated.*

APPENDIX H

TABLE 8 – CATEGORIZED RESPONSES TO KEY STAKEHOLDERS, DISTRICT 1

Table 8

District 1- Categorized Responses to “Key Stakeholders” – Questions 5, 7, 8, & 9

Category of Responses – District 1	# of times referenced	% of times referenced
Community Partners	7	25
School Personnel	6	22
Government Agencies	5	18
Parents	4	15
Students	2	8
Health/Recreation Departments	2	8
District/Board Administrators	2	8

N=28

APPENDIX I

TABLE 9 – CATEGORIZED RESPONSES TO KEY STAKEHOLDERS, DISTRICT 2

Table 9

District 2 - Categorized Responses to “Key Stakeholders” - Questions 5, 7, 8, & 9

Category of Responses – District 2	# of times referenced	% of times referenced
Community Partners	7	37
School Personnel	5	26
District/Board Administrators	3	15
Students	2	11
Health/Recreation Departments	2	11
Parents	0	0
Government Agencies	0	0
N=19		

APPENDIX J

TABLE 10 – CATEGORIZED RESPONSES TO KEY STAKEHOLDERS, DISTRICT 3

Table 10

District 3- Categorized Responses to “Key Stakeholders” - Questions 5, 7, 8, & 9

Category of Responses – District 3	# of times referenced	% of times referenced
School Personnel	6	23
Community Partners	4	15
District/Board Administrators	4	15
Health/Recreation Departments	4	15
Parents	4	15
Students	4	15
Government Agencies	0	0

N=26

APPENDIX K

TABLE 11 – CATEGORIZED RESPONSES TO EVALUATION PROCESS,

DISTRICT 1

Table 11

District 1- Categorized Responses to “Evaluation Process” - Questions 4, 6, 13, & 16

Category of Response	# of times referenced	% of times referenced
No Formal Assessments for PE	7	29
Don't Know/Not Sure	5	21
Nothing in Place	4	16
Only Federal Nutrition Requirements	3	13
Only State PE Requirements	2	8
District Responsibility	2	8
Nothing Nutrition Education	1	5
Not Monitored	0	0
Limited Assessments	0	0

N=24

APPENDIX L

TABLE 12 – CATEGORIZED RESPONSES TO EVALUATION PROCESS,

DISTRICT 2

Table 12

District 2- Categorized Responses to “Evaluation Process” - Questions 4, 6, 13, & 16

Category of Response	# of times referenced	% of times referenced
No Formal Assessments for PE	7	27
Don't Know/Not Sure	7	27
Only Federal Nutrition Requirements	6	23
Not Monitored	3	11
Only State PE Requirements	1	4
District Responsibility	1	4
Limited Assessments	1	4
Nothing Nutrition Education	0	0
Not Monitored	0	0

N=26

APPENDIX M

TABLE 13 – CATEGORIZED RESPONSES TO EVALUATION PROCESS,

DISTRICT 3

Table 13

District 3 - Categorized Responses to "Evaluation Process" - Questions 4, 6, 13, & 16

Category of Response	# of times referenced	% of times referenced
District Responsibility	4	22
Only Federal Nutrition Requirements	4	22
Only State PE Requirements	3	17
Not Monitored	3	17
No Formal Assessments for PE	2	12
PE Assessment in place	1	5
Limited Assessments	1	5
Nothing Nutrition Education	0	0
Don't Know/Not Sure	0	0

N=18

APPENDIX N

TABLE 14 – CATEGORIZED RESPONSES TO CHALLENGES/BARRIERS,

DISTRICT 1

Table 14

District 1- Categorized Responses to “Challenge/Barriers” - Questions 11, 12, 14, 15, & 17

Category of Response	# of times referenced	% of times referenced
Family Values/Habits	77	19
Time/Too Much on Plate	45	11
Health Issues Not Important/Priority	38	9
Academic Requirements/Mandates	34	8
Availability Fast/Convenient Foods	33	8
Cultural Values/Circumstances	31	8
Lack of Funding /Resources	24	6
Expense/Access to Healthy Foods	24	6
Lack of Support/Buy-in/Commitment	23	6
Technology	21	5
Lack of Environmental Resources	18	4
Work Ethic	17	4
Lack of Training	14	3
Corporate Sponsors/Vending	8	1

N=407

APPENDIX O

TABLE 15 – CATEGORIZED RESPONSES TO CHALLENGES/BARRIERS,

DISTRICT 2

Table 15

District 2 - Categorized Responses to “Challenge/Barriers” - Questions 11, 12, 14, 15, & 17

category of Response	# of times referenced	% of times referenced
Corporate Sponsors/Vending Profits	28	17
Availability Fast/Convenient Foods	25	15
Family Values/Habits	22	13
Time/Too Much on Plate	16	10
Lack of Training/Education	14	8
Academic Requirements/Mandates	13	8
Lack of Funding /Resources	12	7
Cultural Values/Circumstances	11	6
Expense/Access to Healthy Foods	9	5
Health Issues Not Important/Priority	8	5
Lack of Support/Buy-In	4	3
Technology	2	2
Lack of Environmental Resources	1	1
Work Ethic	0	0

N=165

APPENDIX P

TABLE 16 – CATEGORIZED RESPONSES TO CHALLENGES/BARRIERS,

DISTRICT 3

Table 16

District 3 - Categorized Responses to “Challenge/Barriers” - Questions 11, 12, 14, 15, & 17

category of Response	# of times referenced	% of times referenced
Family Values/Habits	31	19
Corporate Sponsors/Vending Profits	29	18
Cultural Values/Circumstances	23	14
Lack of Funding /Resources	21	13
Availability Fast/Convenient Foods	15	9
Expense/Access to Healthy Foods	13	8
Time/Too Much on Plate	7	4
Academic Requirements/Mandates	7	4
Lack of Support/Buy-in/Commitment	7	4
Lack of Training/Education	7	4
Health Issues Not Important/Priority	3	2
Technology	1	1
Lack of Environmental Resources	0	0
Work Ethic	0	0

N=164

APPENDIX Q

TABLE 17 – CATEGORIZED RESPONSES TO BENEFITS, DISTRICT 1

Table 17

District 1- Categorized Responses to “Benefits”- Questions 1, 2, 3, 14, 15, & 18

Category of Response	# of times referenced	% of times referenced
Increased Nutritional Choices	21	29
Increased Physical Activity	15	20
Increases Awareness/Education	15	20
Long-Term Health Benefits/Habits	10	14
Healthier/Alert Students	5	7
Healthier Communities/Families	4	5
Increased Academic Achievement	4	5
Decreased Absenteeism	0	0
Reduction of Health Care Costs	0	0
Higher Self-Esteem	0	0
N=74		

APPENDIX R

TABLE 18 – CATEGORIZED RESPONSES TO BENEFITS, DISTRICT 2

Table 18

District 2- Categorized Responses to “Benefits” - Questions 1, 2, 3, 14, 15, & 18

Category of Response	# of times referenced	% of times Referenced
Increased Awareness/Education	23	25
Increased nutritional Choices	20	21
Long-Term Health Benefits/Habits	13	14
Increased Physical Activity	12	13
Healthier/Alert Students	10	11
Healthier Communities/Families	6	6
Increased Attendance	4	4
Reduction of Health Care Costs	2	2
Increased Academic Achievement	2	2
Higher Self-Esteem/Reduce Stress	2	2

N= 94

APPENDIX S

TABLE 19 – CATEGORIZED RESPONSES TO BENEFITS, DISTRICT 3

Table 19

District 3- Categorized Responses to “Benefits” - Questions 1, 2, 3, 14, 15, & 18

Category of Response	# of times referenced	% of times referenced
Increased Nutritional Choices	38	38
Increased Awareness/Education	33	33
Increased Physical Activity	12	12
Healthier Communities/Families	6	6
Long-Term Health Benefits/Habits	6	6
Healthier/Alert Students	3	3
Reduction of Health Care Costs	2	2
Increased Attendance	0	0
Increased Academic Achievement	0	0
Higher Self-Esteem/Reduce Stress	0	0

N=100

APPENDIX T

FOODS OF MINIMAL NUTRITIONAL VALUE

UNITED STATES DEPARTMENT OF AGRICULTURE (USDA)

Foods of Minimal Nutritional Value

The following is taken from Appendix B of 7 CFR Part 210.

Appendix B to Part 210--Categories of Foods of Minimal Nutritional Value

(a) Foods of minimal nutritional value--Foods of minimal nutritional value are:

(1) Soda Water--A class of beverages made by absorbing carbon dioxide in potable water. The amount of carbon dioxide used is not less than that which will be absorbed by the beverage at a pressure of one atmosphere and at a temperature of 60 deg. F. It either contains no alcohol or only such alcohol, not in excess of 0.5 percent by weight of the finished beverage, as is contributed by the flavoring ingredient used. No product shall be excluded from this definition because it contains artificial sweeteners or discrete nutrients added to the food such as vitamins, minerals and protein.

(2) Water Ices--As defined by 21 CFR 135.160 Food and Drug Administration Regulations except that water ices which contain fruit or fruit juices are not included in this definition.

(3) Chewing Gum--Flavored products from natural or synthetic gums and other ingredients which form an insoluble mass for chewing.

(4) Certain Candies--Processed foods made predominantly from sweeteners or artificial sweeteners with a variety of minor ingredients which characterize the following types:

(i) Hard Candy--A product made predominantly from sugar (sucrose) and corn syrup which may be flavored and colored, is characterized by a hard, brittle texture, and includes such items as sour balls, fruit balls, candy sticks, lollipops, starlight mints, after dinner mints, sugar wafers, rock candy, cinnamon candies, breath mints, jaw breakers and cough drops.

(ii) Jellies and Gums--A mixture of carbohydrates which are combined to form a stable gelatinous system of jelly-like character, and are generally flavored and colored, and include gum drops, jelly beans, jellied and fruit-flavored slices.

(iii) Marshmallow Candies--An aerated confection composed as sugar, corn syrup, invert sugar, 20 percent water and gelatin or egg white to which flavors and colors may be added.

(iv) Fondant--A product consisting of microscopic-sized sugar crystals which are separated by thin film of sugar and/or invert sugar in solution such as candy corn, soft mints.

(v) Licorice--A product made predominantly from sugar and corn syrup which is flavored with an extract made from the licorice root.

(vi) Spun Candy--A product that is made from sugar that has been boiled at high temperature and spun at a high speed in a special machine.

(vii) Candy Coated Popcorn--Popcorn which is coated with a mixture made predominantly from sugar and corn syrup.

APPENDIX U

CATEGORIZED RESPONSES BY ALL DISTRICS

	District 1	District 2	District 3	Total	%
Stakeholders (SH)					
Community Partners (SH/CP)	7	7	4	18	
School Personnel (SH/SP)	6	5	6	17	
District/Board Administrators (SH/DA)	2	3	4	9	
Parents (SH/PA)	4	0	4	8	
Students (SH/ST)	2	2	4	8	
Health/Recreation Departments (SH/HR)	2	2	4	8	
Government Agencies (SH/GA)	5	0	0	5	
Total	28	19	26	73	6
Evaluation Process (EP)					
No Formal Assessments for PE (EP/NP)	7	7	2	16	
Only Federal Nutrition Requirements (EP/ON)	3	6	4	13	
Don't Know/Not Sure (EP/DK)	5	7	0	12	
Not Monitored (EP/NM)	4	3	3	10	
District Responsibility (EP/DR)	2	1	4	7	
Only State PE Requirements (EP/SPE)	2	1	3	6	
Limited Assessments (EP/LA)	0	1	1	2	
PE Assessment in place (EP/PE)	0	0	1	1	
Nothing Nutrition Education (EP/NN)	1	0	0	1	
Total	24	26	18	68	6
Challenges/Barriers (CB)					
Family Values/Habits (CB/FV)	77	22	31	130	
Availability Fast/Convenient Foods (CB/FF)	33	25	15	73	
Time/Too Much on Plate (CB/TP)	45	16	7	68	
Corporate Sponsors/Vending Profits (CB/CSV)	8	28	29	65	
Cultural Values/Circumstances (CB/CC)	31	11	23	65	
Lack of Funding /Resources (CB/LF)	24	12	21	57	
Academic Requirements/Mandates (CB/AR)	34	13	7	54	
Health Issues Not Important/Priority (CB/HI)	38	8	3	49	
Expense/Access to Healthy Foods (CB/EA)	24	9	13	46	
Lack of Training/Education (CB/LT)	14	14	7	35	
Lack of Support/Buy-in/Commitment (CB/LS)	23	4	7	34	
Technology (CB/TE)	21	2	1	24	
Lack of Environmental Resources (CB/LR)	18	1	0	19	
Work Ethic (CB/WE)	17	0	0	17	
Total	407	165	164	736	64

	District 1	District 2	District 3	Total	%
Benefits (BE)					
Increased Nutritional Choices (BE/NC)	21	20	38	79	
Increased Awareness/Education (BE/IE)	15	23	33	71	
Increased Physical Activity (BE/IP)	15	12	12	39	
Long-Term Health Benefits/Habits (BE/LT)	10	13	6	29	
Healthier/Alert Students (BE/HS)	5	10	3	18	
Healthier Communities/Families (BE/HF)	4	6	6	16	
Increased Academic Achievement (BE/AA)	4	2	0	6	
Reduction of Health Care Costs (BE/RH)	0	2	2	4	
Increased Attendance (BE/IA)	0	4	0	4	
Higher Self-Esteem/Reduce Stress (BE/SE)	0	2	0	2	
Total	74	94	100	268	23
				1145	100

APPENDIX V

IRB APPROVAL FORM

Georgia Southern University Office of Research Services & Sponsored Programs Institutional Review Board (IRB)		
Phone: 912-681-5465		Veazey Hall 2021 P.O. Box 8005 Statesboro, GA 30460
Fax: 912-681-0719	Ovsr s ight@GeorgiaSouthern.edu	

To: Michele Spurgeon Hartzell
17 Orchid Lane
Savannah, GA-31419

CC: Dr. Charles Reavis
P.O. Box-8131

From: Office of Research Services and Sponsored Programs
Administrative Support Office for Research Oversight Committees
(IACUC/IBC/IRB)

Date: November 6, 2007

Subject: Status of Application for Approval to Utilize Human Subjects in Research

After a review of your proposed research project numbered: H08079, and titled "Obesity: Challenges and Opportunities of Implementing Local Wellness Policies in Georgia Public Schools", it appears that (1) the research subjects are at minimal risk, (2) appropriate safeguards are planned, and (3) the research activities involve only procedures which are allowable.

Therefore, as authorized in the Federal Policy for the Protection of Human Subjects, I am pleased to notify you that the Institutional Review Board has approved your proposed research.

This IRB approval is in effect for one year from the date of this letter. If at the end of that time, there have been no changes to the research protocol; you may request an extension of the approval period for an additional year. In the interim, please provide the IRB with any information concerning any significant adverse event, whether or not it is believed to be related to the study, within five working days of the event. In addition, if a change or modification of the approved methodology becomes necessary, you must notify the IRB Coordinator prior to initiating any such changes or modifications. At that time, an amended application for IRB approval may be submitted. Upon completion of your data collection, you are required to complete a *Research Study Termination form* to notify the IRB Coordinator, so your file may be closed.

Sincerely,



N. Scott Pierce
Director of Research Services and Sponsored Programs