POLICY DIFFUSION AND IMPLEMENTATION IN SCHOOL DISTRICTS: THE ROLE OF COORDINATED SCHOOL HEALTH TEAMS IN HEALTH PROMOTION THROUGH DISTRICT-WIDE HEALTH INNOVATIONS

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ABSTRACT

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Findings from the National Health and Nutrition Education Survey (NHANES) indicate that 31.9% of children and adolescents ages 2 through 19 are overweight, and 16.3% are obese (Ogden, Carroll, & Flegal, 2008). Coordinated School Health Programs (CSHP) have become increasingly popular in school districts across the country over the past 20 years and have been charged with tackling the childhood obesity epidemic. Creating policies around health can help to establish new healthy norms, shift behaviors, and provide explicit information on what is valued within the system, yet little is known about what factors facilitate and impede the adoption and implementation of these policies. This study considers three school districts in a Midwestern state that implemented new health policies to promote wellness and ultimately reduce the prevalence of childhood obesity. Rogers' (1995) Diffusion of Innovations and Durlak and DuPre's (2008) Framework for Effective Implementation provide strong evidence for factors that may predict successful implementation of school health policies. Semi-structured interviews were conducted with three individuals in each school district (N=10) to understand how these policies were spread and ultimately implemented within the district. This study provides support for the importance of these two models and the role of the Coordinated School Health Team in predicting the success of health policy implementation.

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TABLE OF CONTENTS

LIST OF TABLES

Overview

Childhood obesity is a serious health problem facing children in our country. Over the past 40 years, obesity rates have tripled (DeMattia & Denney, 2008), and currently 31.9% of children and adolescents ages 2 through 19 are overweight, and 16.3% are obese (Ogden, Carroll, & Flegal, 2008). Factors contributing to obesity range from the individual to community level, and include such things as personal food choices, family influence, and school/neighborhood conditions (Davidson & Birch, 2001). Taking an ecological approach to addressing childhood obesity considers personal, family, community, and societal factors that may increase one's likelihood of becoming obese (Davison & Birch, 2001). This approach includes schools as one ideal setting for promoting health.

Schools are an optimal setting for health promotion because large and diverse populations can be reached, and schools can target both physical activity and nutrition, two components essential for learning healthy behaviors and preventing obesity. Students spend the majority of their day in school, and often consume up to 40% of their daily basic food group intake in the school setting (Wolfe & Campbell, 1993). Providing ample time for physical activity and offering nutritious foods in the cafeteria are two approaches to improving students' overall health. Schools have generally approached health promotion through targeted, yet fragmented programs that address specific areas such as PE classes or health education. Though these programs have been somewhat effective at improving children's health, they ultimately have the potential to be eliminated due to budget cuts or changes in priorities or personnel (Grebow, Greene, Harvey, & Head, 2000). Because of this lack of sustainability, approaching health promotion through comprehensive policies rather than targeted programs may be a more effective technique (Grebow, et al., 2000; Story, Nanney, & Schwartz, 2009; Veugelers & Fitzgerald, 2005). Polices may ensure health remains a priority within the school and may have

the potential to endure changes that occur due to budget cuts or personnel turnover (Grebow, et al., 2000; Story, et al., 2009; Veugelers & Fitzgerald, 2005). Past research has not explored district-wide, comprehensive health policies as a way to improve student health. This study will consider how school districts have used policies to target health promotion within their schools, and will explore the factors that facilitate and impede policy diffusion and implementation within school districts.

As schools have become a targeted setting for health promotion, Coordinated School Health Programs (CSHPs) have gained popularity. School Health Programs have been in existence since the early 1900's, and have evolved in their focus over time. By the late 1980's CSHPs were targeting behaviors such as diseases associated with tobacco use, illnesses resulting from inadequate physical activity, and health problems due to inadequate dietary patterns, as these behaviors began to be the major causes of disease and death among youth (Allensworth, Lawson, Nicholson, & Wyche, 1997). To target these new issues, many schools created Coordinated School Health Teams (CSHTs) to assess the environment, make recommendations for improvement, and ensure implementation of new programs to address the health needs of students. These CSHTs may play an important role in health promotion through policy diffusion, but little is known about them or their function. This study will consider the role that the CSHT plays in policy diffusion throughout three school districts in an attempt to fill this gap in our understanding of CSHTs' role and function in schools.

Though schools may be an ideal setting for change, research has indicated a number of challenges associated with school reform. Schools often struggle to make change due to the local context, state/national testing requirements, or local capacity (Bond, Glover, Godfrey, Butler, Patton, 2001; Datnow, 2005; Fetro, 1998; Marshak, 2003; McLaughlin, 1998; Oxley,

2000; Spillane, 2000). These restraints affect a variety of reform efforts, and health behavior and education changes often take lower priority than academic reform. In the recent economic climate, schools are facing ever-increasing budget cuts, and health programs such as PE classes, health education, and recess are often eliminated to meet decreasing budgets. Though these challenges exist, it is critical to understand how health policies can be successfully implemented in schools to overcome such challenges. This study will use two theoretical frameworks, Diffusion of Innovations (Rogers, 1995) and the Framework for Effective Implementation (Durlak & DuPre, 2008) as guides to investigate the factors associated with successful diffusion and implementation of health policies within three school districts. Four components of Rogers' (1995) Diffusion of Innovations framework will be considered. These include Relative Advantage, Compatibility, Observability, and Communication Channels, suggesting that the experience of diffusion from the CSHT to the school level may affect implementation of the new policies in individual schools. Four aspects of Durlak and DuPre's (2008) Framework for Effective Implementation will also be considered. Having a Shared Vision, a Program Champion, Administrative Support, and Self-Efficacy for policy implementation may affect School Principals' and Teachers' ability to successfully implement new health policies within their school.

Through a qualitative approach, this study will analyze data from interviews with CSHT members as well as final grant reports from three school districts within one Midwestern state. As part of the Healthy Futures For Kids (HFFK) program, three school districts were selected to implement new health promotion policies within their districts. These districts each selected at least two policies, and implemented these to varying levels of success. This study provides a context for understanding factors associated with successful diffusion and implementation of

innovations in schools. The proposed study has three primary goals: (1) to understand the factors that facilitate and impede policy diffusion and implementation within school districts, (2) to understand the extent to which factors of Diffusion of Innovations and the Framework for Effective Implementation affect policy implementation, and (3) to examine the role that the Coordinated School Health Team plays in this process. To address these goals, four primary research questions will be addressed:

1. How does the diffusion process used by Coordinated School Health Team affect implementation of new policies within schools?
2. How are facets of the Diffusion of Innovations theory related to the implementation of health policies within school districts?
3. How are facets of the Framework for Effective Implementation related to the implementation of health policies within school districts?
4. What role does the Coordinated School Health Team play in policy diffusion throughout school districts?

Overall, this study will provide two key contributions to the literature. The proposed study uses two theoretical models that address diffusion and implementation while taking an ecological approach to understanding the facilitating and impeding factors associated with this process. Previous research has not addressed diffusion and implementation of health policies within school districts, nor has it used these models to explore health policies within schools. Second, this study will consider the role of the Coordinated School Health Team in diffusing these new policies. Little research exists on these teams, yet they may play a critical role in promoting health through district-wide health policies. Understanding how they diffuse policies

to schools to facilitate implementation is a critical first step to fully understanding their role and effectiveness.

The following literature review will provide information on the obesity epidemic in our country, a history and explanation of Coordinated School Health Programs and Teams, schools' role in obesity prevention, and challenges schools face in reform. The literature review will conclude with a presentation of two theoretical models, Rogers' (1995) Diffusion of Innovations and Durlak and DuPre's (2008) Framework for Effective Implementation, that guide this study.

Literature Review

The following literature review will address the childhood obesity epidemic along with factors that contribute to and costs associated with childhood obesity. Following will be a discussion of Coordinated School Health Programs and Coordinated School Health Teams, the importance of using policies rather than programs in promoting health within schools, and finally, a discussion of two theoretical models guiding this study.

Childhood Obesity

Childhood obesity is a serious health issue affecting the youth of America. Findings from the National Health and Nutrition Education Survey (NHANES) indicate that 31.9% of children and adolescents ages 2 through 19 are overweight, and 16.3% are obese (Ogden, Carroll, & Flegal, 2008). Broadly defined, obesity is the state of being well above (above the 95th percentile) the normal weight for an individual's height and age based on the 2000 CDC BMI-for-age-growth charts (in earlier years, children at this cutoff were considered overweight, but terminology has changed over time) (Ogden, Carroll, & Flegal, 2008). Overweight and obesity are determined by a child's Body Mass Index. Body Mass Index (BMI) is a number that is calculated based on an individual's weight and height. The Centers for Disease Control and Prevention (CDC) defines overweight as a Body Mass Index score between the 85th and below the 95th percentile, and obese as a BMI equal to or greater than the 95th percentile (2010a). BMI is the most common definition used to classify individuals as overweight or obese, which is rooted in the 1985 NIH Consensus Conference on Obesity that recommended BMI and relative weight be used to define obesity (Must, Dallal, & Dietz, 1991). Childhood obesity rates in the

United States have tripled since the 1960's, an indication of the fast growing problem in our country and the need to combat obesity though prevention efforts (DeMattia & Denney, 2008).

Health Effects and Cost of Childhood Obesity. Obesity has major immediate and long-term health effects for children. According to the CDC, being overweight or obese as a child increases one's chance of developing type II diabetes, heart disease, stroke, and some types of cancer (Segal & Gadola, 2008). One study found that 70% of obese children had one cardiovascular disease risk factor such as high levels of lipids, adverse levels of insulin, or high blood pressure, and 39% had two or more risk factors (Freedman, Mei, Srinivasan, Berenson, & Dietz, 2007). Similarly, Fontaine, Redden, Wang, Westfall, and Allison used the U.S. Life Tables and three NHANES studies to estimate the number of years of life lost for obese individuals (2003). They found obesity lessened life expectancy, especially among young adults. The maximum years of life lost was estimated to be between 5 and 20 years for obese adults, depending on gender and race (Fontaine, et al., 2003). These staggering statistics indicated that poor nutrition and physical activity habits early in life can lead to further deterioration of one's health in adulthood, a strong reason for early prevention of this devastating disease.

Obesity also has a large cost to society. Children who are obese at age four have a 20% chance of being overweight as an adult, while overweight teens have an 80% chance of remaining overweight as an adult (Guo & Chumlea, 1999). Because obesity is associated with so many medical problems, as individuals' chronic medical conditions worsen, they incur more and more health care costs, and their ability to care for themselves declines (DeMattia & Denney, 2008). These costs associated with obesity add to the already staggering health care costs in our country. In 2000, the total costs of obesity were $117 billion, or about $387 per person, per year based on 2007 census data (DeMattia & Denney, 2008). Finkelstein, Trogdon,

Cohen, and Dietz (2009) estimate that that annual healthcare costs associated with obesity reached $147 billion in 2008. They found that obesity is responsible for 9.1 percent of annual medical costs (up from 6.5 percent in 1998) and an obese individual's medical costs are 42 percent ($1,429) higher than a non-obese individual (Finkelstein, et al., 2009). These costs are the result of prescription drug benefits and diseases associated with obesity (Finkelstein, et al., 2009). As medical costs to both individuals and society continue to increase, it is critical to devote time and resources to prevention efforts to reduce the prevalence of obesity in children. Without prevention efforts, obesity costs will continue to increase in the United States.

Factors Contributing to Childhood Obesity. A number of individual and environmental (family, school, community, society) factors contribute to childhood overweight and obesity (DeMattia & Denney, 2008; Davison & Birch, 2001; Leviton, 2008; Segal & Gadola, 2008). Davison and Birch (2001) used Bronfenbrenner's Ecological Systems Theory to create an Ecological Model of Childhood Obesity to explain the various levels of influence on obesity. The model contains 3 concentric circles that include Child Characteristics and Child Risk factors; Parenting Style and Family Characteristics; and Community, Demographic, and Society Characteristics (Davison & Birch, 2001). This study considers the Community, Demographic, and Society Characteristics, so those will be expanded upon here. The innermost circle includes individual characteristics and risk factors of a child such as dietary intake, physical activity, and sedentary behavior, which are moderated by genetic susceptibility, age, and gender. (Davison & Birch, 2001). Examples of family environmental factors, which are in the second circle of the model, include nutritional knowledge, types of food available to children, parent encouragement of child activity, parent activity patterns, etc. (see Davison & Birch (2001) for a full description).

The outermost level of influence in the Ecological Model of Childhood Obesity is the Community, Demographic, and Societal Characteristics level. Included in this level are factors related to the school, community, and society such as: school lunch programs, school Physical Education classes, neighborhood safety, access to recreational facilities, convenience stores, and restaurants, ethnicity, SES, work hours, and leisure time (Davison & Birch, 2001). Community factors include those related to the schools and neighborhood of an individual or family. Schools play a prominent role in developing a child's dietary and physical activity habits given that over 92% of children attend school (National Center for Education Statistics; 2003-2004 school year). School lunch programs can contribute to 40% of a child's daily basic food group intake and 40% of the different foods that children eat (Wolfe & Campbell, 1993). Similarly, schools provide an optimal venue for physical activity for children, yet many schools are cutting PE programs and recess in order to achieve higher academic success through increased instruction time, and often Physical Education classes take low priority in the school budget (Davison & Birch, 2001). Research shows that children who do not have opportunities for physical activity in school, either through recess or Physical Education classes, have lower overall rates of activity as compared to those children who do have school-based opportunities (Myers, Strikmiller, Webber & Berenson, 1996). Another community factor that may predict a child's likelihood of becoming overweight or obese is accessibility to recreational facilities, convenience stores, and restaurants. These factors often tie into the demographic characteristics of ethnicity and SES, as research has shown that ethnic minorities and families of lower SES have less access to all three (Davison & Birch, 2001; Sobal & Stunkard, 1989). For example, physical activity is often infrequent for children of low SES due to a lack of leisure time for parents, less parental knowledge of the benefits of physical activity, fewer financial resources, and neighborhood

safety and availability of safe spaces to play (Davison & Birch, 2001; Sobal & Stunkard, 1989). The CDC defines food deserts as "areas that lack access to affordable fruits, vegetables, whole grains, low-fat milk, and other foods that make up the full range of a healthy diet" (CDC, 2010b). Food deserts are often located in low-income neighborhoods because they lack access to healthy food options such as full service grocery stores and transportation to healthy food options is a challenge. Also related to how a family eats is the availability of convenience stores and restaurants. Research has shown that frequent exposure to convenience foods is associated with higher weight in adults, and it is predicted that these findings are consistent in children as well (McCrory, Fuss, Hays, Vinken, Greenberg & Roberts, 1999). Similarly, what parents provide to their children is often a reflection of the types of foods available in supermarkets near the home (Cheadle, et al., 1991). Families of lower SES have shown less variety in their diets due to less access to healthy foods than those of higher SES, and often their food choices are much higher in fat and lower in fresh fruits and vegetables (Wolfe & Campbell, 1993; Hill & Peters, 1998). Finally, societal characteristics also contribute to obesity risk in children. Long work hours and minimal leisure time often force families to eat conveniently, selecting unhealthy pre-made and convenience foods rather than fruits and vegetables (Hill & Peters, 1998; Popkin & Doak, 1998). Families with intensive work demands often have less leisure time, which provides fewer opportunities for involvement in physical activity (Dishman, Sallis, & Orenstein, 1985).

It would be inappropriate to consider these three levels in isolation. A child's eating and activity patterns cannot be separated from those of their family, as parents provide food and opportunities for their children. Likewise, we cannot ignore the community/society factors as those greatly impact parents' ability to provide healthy alternatives to their children based on time and availability. Combining the community influences with family and individual

characteristics provides a thorough analysis of a variety of factors that contribute to the increasing rate of childhood obesity in our country. This model provides a range of areas that can be targeted at various levels to combat obesity through prevention efforts.

Coordinated School Health Programs

Coordinated School Health Programs (CSHPs) have become increasingly popular in school districts across the country over the past 20 years and have been charged with tackling the childhood obesity epidemic. A description of CSHPs is provided, followed by a consideration of the school's role in preventing obesity and the challenges associated with school reform.

History of Coordinated School Health Programs. School Health Programs have been in existence since the early 1900's, and have generally been composed of three areas: school health services, school health education, and the school health environment (Allensworth & Kolbe, 1987). School health services are generally determined by the needs of the community and include physical, counseling, psychological, nutrition, and social services (Allensworth, Lawson, Nicholson, & Wyche, 1997). School health education includes both physical and health education to promote healthful behaviors and awareness of health issues (Allensworth, et al., 1997). The third component, the school environment, is composed of the physical (building structure, lighting, safety), policy and administrative (rules, regulations), and psychosocial (supportive, nurturing) environments (Allensworth, et al., 1997). The healthful environment includes things such as the lunchroom facilities, which can influence the types of foods served in schools, policies and practices related to schedules, activities, and safety precautions, which define priorities within the school with regards to health, and aspects related to the psychosocial environment such as pupil-teacher relationships and an atmosphere of mutual respect, which can affect the mental health of both students and staff (Allensworth, et al., 1997).

In the beginning of the 20th century, the focus of these programs was infectious disease prevention, as these diseases were the leading causes of death (Allensworth & Kolbe, 1987). Later in that century, behaviors began to be the major causes of disease and death among youth (Allensworth, et al., 1997). The CDC identified six behaviors that accounted for 70% of adolescent morbidity and mortality: unintentional and intentional injuries, drug and alcohol abuse, sexually transmitted diseases and unintended pregnancies, diseases associated with tobacco use, illnesses resulting from inadequate physical activity, and health problems due to inadequate dietary patterns (Allensworth, et al., 1997). A shift in coordinated school health efforts was considered necessary to target these new needs.

In the 1980's, Comprehensive School Health Programs (CSHP) began to develop to address these new behavioral issues. In 1987, an innovative article by Allensworth and Kolbe proposed a more complete approach to school health and suggested an 8-component model. Today, the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) of the CDC supports this 8-component model and provides guidance and collects survey data regarding health programs and policies in schools. Though all eight components may not be present in every school, the CDC does recommend incorporating all eight pieces to be comprehensive in addressing the health needs of our children.

Definition of Coordinated School Health Programs. In 1994, The Institute of Medicine assembled a committee of 17 diverse stakeholders to study comprehensive school health programs. The working definition created by the committee is as follows:

A comprehensive school health program is an integrated set of planned, sequential, school-affiliated strategies, activities, and services designed to promote the optimal physical, emotional, social, and educational development of students. The program involves and is supportive of families and is determined by the local community, based on community needs, resources, standards, and requirements. It is coordinated by a multidisciplinary team and

accountable to the community for program quality and effectiveness (Allensworth, et al., 1997, pg 2).

According to the committee, the purpose of CSHPs is to

"take advantage of the pivotal position of schools in reaching children and families by combining—in an integrated, systemic manner—health education, health promotion and disease prevention, and access to health-related services at the school site. CSHPs may be a promising way both to improve health and educational outcomes for students and to reduce overall health care costs by emphasizing prevention and easy access to care." (Allensworth, et al., 1997, pg 2).

In recent literature, (i.e. CDC definitions), 'coordinated' seems to be the dominant choice when referring to these programs, while historically, CSHP used 'comprehensive' in defining these programs. This shift resulted from a meeting of organizations specializing in the eight components of coordinated school health that recommended this shift to emphasize the separation of the eight components and how they relate to the whole program, and better reflect the goals they try to accomplish (Marx, Wooley, & Northrop, 1998). These eight components are the foundation of Coordinated School Health Programs and schools are encouraged to incorporate all eight to fully address the health needs of students, staff, and the community.

Eight Components of Coordinated School Health Programs. The eight components of Coordinated School Health Programs include: Health Education, Physical Education; Health Services; Nutrition Services; Counseling, Psychological, and Social Services; Healthy School Environment; Health Promotion for Staff; Family/Community Involvement (Allensworth & Kolbe, 1987; NCCDPHP, 2008). Descriptions of these eight components can be found in Table 1.

Though all eight of these components are recommended for a comprehensive Coordinated School Health Program, research shows that school-based programs that target childhood obesity prevention tend to focus on four of these components, Health Education, Physical Education, Nutrition Services, and Family/Community Involvement, most often,

suggesting their centrality in addressing obesity in schools (Abood, Black, & Coster, 2008; Baranowski, et al, 2000; Carrel, Clark, Peterson, Nemeth, Sullivan, & Allen, 2005; Datar & Sturm, 2004; Iverson, 1981; Marx, 1998; Neumark-Sztainer, Story, Hannan, & Rex, 2003). The importance of these components was also supported by the Centers for Disease Control. The CDC created a guide for schools that includes research-based strategies to address the issue of childhood obesity (Wechsler, McKenna, Lee, & Dietz, 2004). This guide includes 10 key strategies to promote healthy eating and lifelong physical activity in children through Health Education, Physical Education, and Nutrition Services, three of the four aforementioned frequently incorporated components of the CSHP. Wechsler, et al. (2004) suggest promoting healthy behaviors in schools by assessing the school's health policies and programs and developing a plan for improvement, strengthening the school's nutrition and physical activity policies, implementing high quality physical and health education curriculum, increasing opportunities for engagement in physical activity, implementing a quality school meals program, and ensuring healthy food and beverage options are available outside the cafeteria. While the report does not note the importance of Family/Community Involvement, many scholars in the school reform literature emphasize the necessity of community support in creating change that is reflective of the student, staff, and community's needs (Comer, 1987; David, Purkey, & White, 1989; Oxley, 2000; Purkey & Smith, 1983).

Essential Components and Benefits of CSHPs to Prevent Childhood Obesity. There is a growing body of evidence to suggest the importance of these four components in preventing childhood obesity. For example, research has demonstrated that children learn the importance of leading a healthy life and making healthy decisions through Health Education courses, and they learn ways to be physically active throughout life by participating in Physical Education classes

(Abood, Black, & Coster, 2008; Baranowski, et al., 2000; Carrel, et al., 2005; CDC, 1996; CDC, 1997; Connell, Turner, & Mason, 1985; Datar & Sturm, 2004; Neumark-Sztainer, et al., 2003). Preventing obesity through schools not only improves the health of students, but this in turn can affect academic outcomes. Poor nutrition and inactivity have been linked to negative school outcomes such as absenteeism (Geier, et al., 2007), low self-esteem and depression as a result of teasing (Associated Press, 2007; Twemlow, Fonagy, Sacco, Gies, Evans, & Ewbank, 2001), lower grade point averages, more detentions, and lower reading comprehension test scores (Shore, Sachs, Lidicker, Brett, Wright, & Libonat, 2005). In addition to promoting health in childhood and academic success, CSHPs may also reduce children's risk of developing chronic diseases later in life. Kolbe (2002) discusses five major chronic diseases (heart disease, stroke, cancer, chronic obstructive pulmonary disease, and diabetes) that contribute to 72% of deaths among adults over 25 years old. These diseases are often the result of behaviors such as tobacco use, inadequate diet, and sedentary behavior, which often are established in youth and continue into adulthood (Kolbe, 2002). CSHPs target these three risk factors through teaching the risks of smoking in Health Education, providing healthy food options through Nutrition Services, and promoting an active lifestyle through Physical Education classes, with the ultimate goal of reducing the prevalence of these chronic diseases. Creating health policies around these three components may ensure implementation of programs that positively impact students' health and academic performance.

Teaching children the importance of health at an early age can help provide a foundation for healthy choices throughout life. An example of using Health Education to improve health behaviors is the *Gimme 5* program, an experimentally implemented intervention in 16 elementary schools that included 12 classroom sessions targeting specific behavioral changes

related to fruit, juice, and vegetable (FJV) consumption (Baranowski, et al., 2000). Results from the self-report food logs show an increase in FJV consumption and nutrition knowledge among students, indicating a positive health behavior change through Health Education.

Likewise, positive health behavior changes such as decreased BMI and increased fitness levels through Physical Education have been found in overweight students enrolled in a lifestyle-focused, fitness-oriented gym class (Carrel, et al., 2005), girls in supportive P.E. classes (Neumark-Sztainer, et al., 2003), and in students who increased physical education classes by one hour per week between two school years (Dater & Sturm, 2004). Similarly, participation in physical activities can have positive effects by reducing anxiety, tension, stress, and depression (Michigan Department of Education, 2001) and positively impact academic success (Hawkins, Catalano, Kosterman, Abbott & Hill, 1999; Kolbe, 2002; Michigan Department of Education, 2001; Murphy, Pagano, Nachmani, Sperling, Kane & Kleinman, 1998). For example, controlled studies in which the experimental group received 250 minutes less academic instruction per week in order to increase physical activity showed improved or unchanged academic test scores compared to the control condition students (Michigan Department of Education, 2001). Likewise, two studies of physical activity found a small but positive correlation between time spent in Physical Education classes and academic performance and test scores (Carlson, et al., 2008; Strong, et al., 2005). These results point to the capability of incorporating aspects of CSHPs into school settings without disturbing academic achievement. They also indicate that school-based policies can be used to address obesity by promoting programs and practices that lead to positive behavioral changes in nutrition and physical activity. By creating policies to improve health, schools can elevate the importance of health and create new norms through

targeted programs that address healthy behaviors. Therefore, it is critical to insure diffusion and implementation of health policies that promote healthy behaviors in children.

Nutrition Services in schools are essential to reducing obesity, as students spend the majority of their day at school, and have ample opportunity to consume foods outside the federally funded school nutrition program (i.e. vending machines, a la carte offerings, school stores) (Briefel, Crepinsek, Cabili, Wilson, & Gleason, 2009; Fox, Gordon, Nogales, & Wilson, 2009; Institute of Medicine, 2007). These foods do not have to meet nutrition standards, and are often high-fat and high-calorie options (CDC, 2009). Two studies of competitive foods in schools provide support for eliminating competitive foods or mandating they adhere to nutritional standards (Briefel, et al., 2009; Fox, et al., 2009). The first study found that students who consumed a school lunch were less likely to consume competitive foods and consumed fewer calories from competitive foods (Fox, et al., 2009). The second found that students who attended schools without a la carte offerings, school stores, or snack bars (sources of competitive foods) consumed fewer calories from sugar-sweetened beverages, and not offering French fries also reduced consumption of low-nutrient, energy-dense foods (Briefel, et al., 2009). By providing healthy foods in school cafeterias and all other school settings, schools can help children to develop healthy eating habits for the rest of their lives by reinforcing the message of health standards for all food available at school (IOM, 2007).

Finally, Family/Community Involvement is critical to supporting the efforts of Coordinated School Health Teams. Schools can gain parent support for health policies by educating them on the importance of school-based health, while partnering with community providers that specialize in various areas of health (i.e. adaptive physical education, nurse practitioners, etc.) may help schools to identify policies to most effectively target the problem

they hope to address (Allensworth, 1997). Participation of members outside the school helps to identify the actual (rather than perceived) needs of families and may also increase family/community support for school-based health efforts (Allensworth, et al., 1997; Fetro, 1998; NASBE, 2009).

Family/Community Involvement through participation in school health teams/councils as advocates for health has successfully led to the implementation of health curriculum and services based on student, family, and community needs (Iverson, 1981; Marx, 1998). Family participation in health programs has also helped to increase health behaviors in the home to promote consistent messages and behaviors across school and home settings (Lytle, et al., 2004; Perry, et al., 1988). For example, Perry, et al. (1988) found that students in a home-based health promotion program showed more behavioral changes (i.e. reduced fat intake, had more encouraged foods on their food shelves) than students in a school-based program, emphasizing the importance of parental involvement in changing children's health behaviors. Based on previous research related to and recommendations regarding physical activity and healthy diets, targeting policies around these four components in a Coordinated School Health Program should vastly improve the health of students and reduce the incidence of obesity in our country (Briefel, et al., 2009; CDC, 1996; CDC, 1997; Fox, et al., 2009; IOM, 2007; Iverson, 1981; Marx, 1998).

Coordinated School Health Teams (CSHTs)

Coordinated School Health Teams play a central role in promoting the various components of CSHPs by creating plans for health programs or policies and monitoring implementation of those plans and policies. School health teams have been in existence for decades (Hackenburg, 1959; Marx, 1968; Spurling, 1948; Valenti & Humb, 1981; Zimmerli, 1981), but many have been informal and did not address the newly created CSHP model of 8

comprehensive components. These teams are composed of a variety of stakeholders including students, parents, community members, key school staff (i.e. food services director, school nurse, school counselors), administrators, teachers, and a staff coordinator (Allensworth, et al., 1997; Fetro, 1998; Marx, 1998). CSHTs' responsibilities include assessing student, family, and staff needs, identifying existing and potential resources, identifying gaps in services, creating action plans and intervention programs, advocating for school health, fiscal planning, implementing and monitoring these plans, and evaluating progress and impact of programs and policies (American Cancer Society, 1999; Fetro, 1998; Marx, 1998). In the current study, the CSHTs in each school district were responsible for identifying the needs of the school, selecting health policies based on those needs, creating a plan to adopt and diffuse the policies, and monitoring the implementation of these policies within the various schools. This study will consider the role of the CSHT in diffusing the selected health policies to schools within the district and how this process affected implementation at the school level.

CSHTs are present in many districts across the country. According to the 2006 School Health Policies and Programs Study, 72.9% of school districts had one or more school health teams (Kann, Brener, & Wechsler, 2007). Though CSHTs are becoming increasingly common, little is known about their role and how effective they are in ensuring diffusion and implementation of health programs or policies within a school district.

Factors Influencing CSHT's Effectiveness. Coordinated School Health Teams' effectiveness to advise and support CSHPs is greatly impacted by a number of factors related to the school environment, the structure of the team, and characteristics of team members (Public Schools of North Carolina, 2003). The Public Schools of North Carolina created a manual for effective coordinated school health advisory councils and noted a number of factors that

influence the functioning of a CSHT. Examples of these factors include: the level of administrative support, competition for funding/facilities, legislative mandates, membership roles and responsibilities, team leadership, and how knowledgeable and committed members of the team are (Public Schools of North Carolina, 2003). Though factors that influence CSHT's functioning have been identified in reports and guidance documents (Allensworth, 1997; Public Schools of North Carolina, 2003), research has not addressed how effective they are in promoting health policies within schools. Yet, health policy adoption and diffusion are central to the success of CSHPs (Maine Department of Education, 2002). As previous research and evaluation have only targeted these factors as related to team effectiveness, this study will broaden this inquiry by looking at factors related to effective diffusion of health policies from the CSHT to individual schools. In addition, this study will consider the role of CSHT in policy diffusion, and how they communicated the new policies to schools within their district.

Schools' Role in Obesity Prevention

Schools play a critical role in addressing the issue of childhood obesity to ensure students learn healthy habits to follow them through life and to improve academic outcomes (Allensworth, et al., 1997; NASBE, 2009). It is important to tackle the issue of promoting nutrition and physical activity through district-wide policies rather than just targeted programs (Story, et al., 2009). Polices ensure priority within the school and often endure changes that may occur due to budget cuts or personnel turnover (Grebow, Greene, Harvey, & Head, 2000).

While policies are often more sustainable and have wider impact, they also face challenges in adoption and implementation. For example, though the Child Nutrition and Women, Infants, and Children Reauthorization Act of 2004 mandated the development of wellness policies in schools, schools still struggle to prioritize Health and Physical Education due

to the increasing mandates under the No Child Left Behind Act and a lack of reward or consequence for not adhering to the established wellness policy (NASBE, 2007; NASBE, 2009). A study of school and community health professionals found that more than 70% of these individuals did not feel schools were adequately implementing these wellness policies (Action for Healthy Kids, 2008). Three states have taken a unique approach to adopting and implementing health policies by incorporating their local wellness policies into the overarching school improvement plan (NASBE, 2007). By addressing wellness in this manner, nutrition and physical education receive equal consideration as math, science, and reading when making decisions about time allocations, staffing, and budgets (NASBE, 2007). Incorporating wellness policies into the general education accountability systems as these states have may also lead to professional development for staff and promote wellness as an important aspect of the school climate (NASBE, 2007). Further research is needed to understand how incorporating wellness policies into larger school goals can positively affect students' health.

Increasing the importance of wellness at the district level through district-wide health policies may transfer to the local schools and increase cooperation in adhering to new policies. A nationwide study by the Robert Wood Johnson Foundation (2003) found that district policies were more likely to be effective than state or federal policies because state and federal agencies are unable to enforce policies locally. Though local policies are more effective than state or national policies, they still need revisions as many are outdated, do not include strong language to require change, but rather 'encourage' change, and do not include enforceable rules (RWJF, 2003). Focusing policy efforts at the local level that can be adjusted to meet the needs of a specific district may prove to be successful if fully enforced. The purpose of the current study

was to understand how to diffuse and implement these policies successfully to improve the health of school children.

Schools tend to approach coordinated school health through the addition of targeted programs rather than policies aimed at improving the school environment (Story, et al., 2009). Creating policies around health can help to establish new healthy norms, shift behaviors, and provide explicit information on what is valued within the system. These policies may shift programs to ensure sustained change to reduce the prevalence of unhealthy behaviors. In this study, school districts selected policies related classroom snacks and rewards and PE curriculum in an attempt to improve students' health. It is important to learn how these CSHTs diffused these policies and schools implemented them to promote student health. Understanding how this implementation occurs and the strategies necessary to effectively diffuse and implement these policies, rather than simply focusing on the programmatic elements, is important so that other districts can learn the appropriate process for successful implementation. Schools struggle with implementation and effective diffusion of policies, and this study provides a unique opportunity to examine this process more closely and understand factors that affect diffusion and implementation.

Effective School-Based Policies. The National Association of State Boards of Education (NASBE) (2009) recommended that schools implement multifaceted policies with various components related to physical education/activity and nutrition to supply a consistent health promotion message in different settings across the school. To address physical activity, policies should concentrate on sequential P.E. programs for grades PK-12 on a daily basis, daily recess, and opportunities for before- and after-school physical activities, while policies related to nutrition should include adequate time for eating meals, nutrition standards for all foods (school

meals program and competitive foods), sequential PK-12 Health Education program, and behavior-focused nutrition instruction (NASBE, 2009). These policies address various areas to ensure consistent messaging regarding health in schools. Though many school districts elect to implement programs related to the 8 components of CSHP, policies can also be used to address these components. As exemplified above, these policies can relate to Health Education and Physical Education, but to be effective, should be district-wide and strongly enforced (RWJF, 2003). Policies then may be an appropriate route for health promotion within the school as they become sustained and create a context that supports health.

Establishing a policy around a health initiative ensures that health is a priority within a school district. Policies can help guide budgetary decisions and keep the school board and district accountable (Grebow, et al., 2000). In this way, policies can help change the norms, regulations, and operations within a district, core components of systems change (Foster-Fishman, et al., 2007). Though research supports the use of policy to enforce important programs, researchers have not examined the role of the CSHT in facilitating policy implementation within a school district. Little to no research exists on Coordinated School Health Teams, save a few guidance documents regarding the importance of their existence in the overall CSHP (Allensworth, et al., 1997; Fetro, 1998). A few studies have talked about these teams, but have not explained their role or how these teams impact school health initiatives (Ashe, Feldsteind, Graff, Klien, Pinkas, & Zellers, 2007; Langenfeld, Bonaiuto, & Edmonds, 2006). As schools face more and more requirements and testing, it is crucial that health promotion remain a priority. Many schools oppose adding more requirements related to health and physical activity due to them impinging on classroom instruction time, however research shows healthy students have higher academic achievement (Hawkins, et al., 1999; Kolbe, 2002;

Michigan Department of Education, 2001; Murphy, Pagano, Nachmani, Sperling, Kane & Kleinman, 1998; Murray, Low, Hollis, Cross, Davis, 2007). As childhood obesity rates continue to increase and at the same time academic requirements escalate, it is not enough to simply adopt a wellness policy, it is crucial to understand how CSHTs can ensure successful implementation of health policies within schools. Policies can be adopted relatively easily, and are often adopted by those in authority, but implementing the policy is much more difficult as it requires the cooperation of various levels, district and school, and differences in implementation can occur across these levels (McLaughlin, 1998; Spillane, 2000). By clearly understanding the necessary conditions for successful policy diffusion and implementation, CSHTs can exert more power to influence school policies to ensure a healthy school environment for students.

Schools as Challenging Settings for Change.

A number of conditions within schools make them challenging locations for change to occur. School reform has been a prominent issue within our country for over fifty years, and scholars have written extensively about various initiatives and targeted problems that schools have tried to address such as mathematics reform, school lunch and nutrition education, physical activity, and mental health promotion (Bond, et al., 2001; Cho & Nadow, 2004; Elder, et al. 2007; McLaughlin, 1998; Oxley, 2000; Spillane, 2000). The following sections will address a number of the challenges that may be associated with health policy implementation such as the complexity of the school system, the local context, school requirements, and local capacity.

Schools as Complex Systems. To begin, schools are complex systems, made up of both children and adults in various roles, organizational structures, cultural norms, and physical buildings (Oxley, 2000). Boyd (1991) noted the importance of recognizing the contradictory nature of school systems which are made up of both a "bureaucratic hierarchy" and a "loosely

coupled" system that gives teachers autonomy in their classes, making prediction of individual behavior nearly impossible. Greenberg (2004) considered these challenges associated with the complexity of the school system in relation to prevention programs. He suggested that prevention programs face challenges related to integration across the developmental stages (grade levels), across levels of care (curriculum training and technical assistance across services), and across institutional services (between community agencies and schools) (Greenberg, 2004). Especially for a CSHP, which requires the coordination of various components, it is essential for the underlying structure of the school to be supportive of health to ensure sustained, positive change occurs.

Schools' Relation to the Local Context. The local context both within and outside the school can create challenges for school reform (McLaughlin, 1998; Oxley, 2000; Spillane, 2000). Schools do not exist in isolation, but are influenced by the surrounding environment, so it is important to 'locate' schools within the larger context of the community, state, and federal bureaucracies (Oxley, 2000). A number of local factors can contribute to the success or failure of policy implementation and include such things as the agendas of implementing agencies, community attitudes, resources, time (Berman & McLaughlin, 1977; Elmore & McLaughlin, 1988), and local events such as teachers' strikes, budget cuts, and declines in enrollment (McLaughlin, 1998). Firestone (1989) suggested that those policies that align with local agendas are more readily accepted than those that are misaligned, therefore, new policies should be created that will be more readily accepted by local staff and the community to ensure implementation occurs.

No Child Left Behind Restrictions. Another challenge in schools in diffusing and implementing new policies is the number of requirements placed on districts under the No Child

Left Behind Act, namely standardized testing (Marshak, 2003). For example, a study of the barriers associated with implementing quality lunch and nutrition education in Massachusetts schools found that respondents consistently noted statewide standardized tests as the priority within the school, treating nutrition as an "extra-curricular topic rather than a part of the curriculum" (Cho & Nadow, 2004, p. 431). Health educators in Massachusetts suggested adding nutrition as a topic on standardized tests to ensure its importance in schools (Cho & Nadow, 2004). Coordinated School Health Teams working to implement policies must be aware of the challenges associated with testing requirements, and should try to incorporate health topics into existing curriculum in an attempt to both teach health and meet testing standards (Allensworth, 1997; NASBE, 2009).

Capacity for Reform. Local capacity has often been noted as a central factor that may affect implementation (Bond, et al., 2001; Datnow, 2005; Fetro, 1998; McLaughlin, 1998; Spillane, 2000). Schools need professional development and support for staff to gain the necessary skills for implementing new policies (Bond, et al., 2001; Cho & Nadow, 2004; Datnow, 2005; McLaughlin, 1998; NASBE, 2009; Oxley, 2000; Spillane, 2000). Teachers and other school staff are often not trained in the best practices and strategies used within schools to promote wellness, and without the necessary skills will not be able to successfully implement the new program (Cho & Nadow, 2004; NASBE, 2009). In addition, personnel that feels unprepared for new programs may encounter undue stress and a lack of confidence in trying to meet new requirements (NASBE, 2009).

In the case of school health policies, CSHT members, School Principals, and other school personnel need sufficient training and TA. The CSHT requires the necessary skills to identify the needs of the school and suggest relevant policies. They also are charged with assisting with

implementation, so therefore must have training to assist schools. Similarly, School Principals are key to implementation at the school level. As previous studies have supported the importance of training and technical assistance within schools (Bond, et al., 2001; Cho & Nadow, 2004; Datnow, 2005; McLaughlin, 1998; NASBE, 2009; Oxley, 2000; Spillane, 2000), it is possible that without TA throughout the process, school staff may feel ill equipped to make change happen. Also at the school level, teachers and food service directors need support to implement policies in the classroom and the cafeteria.

In relation to health promotion, Hawe (1994) suggested capacity building among school personnel will increase and prolong the health effects of interventions because new programs become embedded in the school and community. Similarly, Cho and Nadow (2004) suggested a number of capacity barriers faced by Coordinated School Health Programs in implementing quality lunch programs and nutrition education. These barriers included factors such as lack of funding, lack of communication with teachers, lack of leadership, etc. (Cho & Nadow, 2004). The authors found that food service providers and health educators lacked time for collaboration with other teachers to promote consistent health messaging and food service directors lacked appropriate support in the form of materials for nutrition education in the cafeteria (Chow & Nadow, 2004). Though capacity related barriers to implementation have been addressed in the past, these studies have generally focused on specific programs in schools, often unrelated to nutrition and physical activity.

Creating district-wide changes through policies may be daunting and unsuccessful if attention is not paid to the potential organizational, contextual, and personal challenges associated with school reform. As little research exists regarding diffusion and implementation of health policies as part of the Coordinated School Health Program, this study will begin to

consider the challenges and facilitating factors associated with health policy diffusion and implementation. How schools can ensure policies are successful is an important phenomenon to understand. If policies can be implemented and sustained, they may prove to be more effective at addressing childhood obesity than programs, and have long-term health benefits for children. CSHTs should consider the challenges faced in other types of school reform as well as those challenges faced by health programs that have been implemented and anticipate similar challenges in changing health policies around physical activity and nutrition. Durlak and DuPre (2008) provided a useful framework for exploring a number of these school reform challenges through the various factors they cite in their Framework for Effective Implementation.

Reasons for Studying Diffusion and Implementation of Health Policies in Schools. Policies have the potential to create widespread change in schools, and health policies targeting physical activity and nutrition may ultimately lead to obesity prevention (NASBE, 2009). Two elements related to schools' efforts to employ new health policies are crucial to understand: diffusion and implementation. Diffusion of new programs or policies is challenging because schools are complex systems with many requirements, nestled within unique contexts (Boyd, 1991; Greenberg, 2004; McLaughlin, 1998; Oxley, 2000; Spillane, 2000). Policies are often adopted at the district level, but diffusion of the policy to the various schools or teachers within the district does not always occur (McLaughlin, 1998). Understanding how this process can successfully occur is crucial for health policies to have an impact on children. Rogers (1995) defines diffusion as "the process by which an innovation is communicated through certain channels over time among the members of a social system" (p. 5). According to this definition, the innovation (in this case health policies) must be transferred through the system by means of communication on the part of the CSHT and School Principals to reach the teachers and school personnel affected

by the new policy. After diffusing the policy, implementation must occur, as adoption does not necessary lead to implementation (McLaughlin, 1998).

Implementation is generally defined as "what a program consists of when it is delivered to a particular setting" (Durlak & DuPre, 2008, p. 329) and includes 8 components including fidelity, dosage, quality, participant responsiveness, program differentiation, monitoring of control/comparison conditions, reach, and adaptation (Dane & Schneider, 1998; Durlak & DuPre, 2008). Implementation of new programs or policies is often a challenge in schools because the local context may not support the policy, and school personnel affected by the new policy may not have the capacity to successfully implement it (Bond, 2001; Datnow, 2005; McLaughlin, 1998; Spillane, 2000). In this study, policies were selected by the CSHT and adopted district wide within the district Wellness Policy. CSHTs were responsible for diffusing the new policies to schools within the district to ensure implementation occurred. The extent to which a school implemented the new policy, as well as factors affecting implementation, such as the local context, will be studied by examining three school districts and their efforts to diffuse and implement a district-wide health policy, such as classroom snack/reward policies and quality Physical Education curriculum. These policies were new innovations for each district, and required district-wide implementation. Understanding the process of diffusion and the factors influencing the acceptance or rejection of these policies throughout the districts will help other districts successfully implement similar new health policies. Though many challenges associated with school reform have been identified, such as the local context, the complexity of the school system, and testing requirements, it is unclear how health policies are diffused and eventually implemented at the school level and what factors facilitate and impede this process. This study

will address these issues by comparing three school districts' efforts with a new health policy intended to spread throughout the district.

We do not fully understand the different factors associated with the process of policy diffusion and implementation across a school district. Factors necessary for successful implementation, such as a supportive environment and a perceived need for the innovation (Durlak & DuPre, 2008) likely correlate with the success of implementation, but the importance of each may depend on the local setting (Patel, et al., 2009; Thaker, Steckler, Sanchez, Khatapoush, Rose, & Hallfors, 2008). Studying how diffusion and implementation occurred within each school district will vastly improve our understanding of the role of Coordinated School Health Teams in diffusing health policies district-wide and the factors that facilitate or impede diffusion and implementation across districts and schools.

Four main research questions will be addressed in this study: (1) How does the diffusion process used by Coordinated School Health Team affect implementation of new policies within schools? (2) How are facets of the Diffusion of Innovations theory related to the implementation of health policies within school districts? (3) How are facets of the Framework for Effective Implementation related to the implementation of health policies within school districts? (4) What role does the Coordinated School Health Team play in policy diffusion throughout school districts? Two theoretical models will be used to frame this study and address these research questions.

Theoretical Frameworks for Policy Implementation by Coordinated School Health Teams

Two theoretical frameworks will be used to understand the processes of diffusion and implementation of health policies in schools. The first will be Rogers' Diffusion of Innovations (1995). This theory is useful because it helps to explain how new policies spread through the

various schools in the district, and similarities and differences across school settings. The next framework is Durlak and DuPre's Framework for Effective Implementation (2008). This framework helps to understand the various factors that facilitate or impede the implementation of health policies at the school level. Understanding how diffusion occurs throughout a school district and learning the important factors that facilitate implementation are critical to create effective obesity prevention approaches through district-wide policy change.

Rogers' Diffusion of Innovations theory (1995) has been applied to Coordinated School Health Programs by two authors (Alter & Lohrmann, 2005; Bosworth, Gingiss, Potthoff, & Roberts-Gray, 1995). Bosworth, et al. (1995) conducted a national focus group of school principals, board members, and district administrators who compiled a list of factors necessary for implementation that align with Rogers' innovation characteristics. Likewise, Alter and Lohrman (2005) interviewed state level CSHP directors to understand strategies for gaining support for their efforts, noting the importance of a change agent in diffusing the CSHP. While others have applied Rogers' theory to CSHPs, these prior studies have not considered the role the Coordinated School Health Team plays in diffusing health policies to schools and how this experience affects implementation.

Rogers' Diffusion of Innovations

Elements of Diffusion. Diffusion is defined as "the process by which an innovation is communicated through certain channels over time among the members of a social system" (Rogers, 1995, p. 5). The rate of adoption of innovations can vary significantly across settings and is affected by four elements: the innovation, communication channels, time, and characteristics of the targeted social system (Rogers, 1995). For this study, the first two elements of diffusion, the innovation and communication channels, will be considered because various

innovation characteristics and how the new policy is communicated to others may impact the way that a health policy is diffused throughout a school district. These two elements are especially important within a school district because policies (as innovations) have a number of characteristics that could be supported or opposed by many within the district. Understanding which innovation factors best facilitate successful implementation is important. Similarly, how the innovation is communicated to district personnel from the CSHT may impact if and how the new policies are implemented. Implementers of the new health policy innovations include School Principals and teachers. Though policy adoption at the district level had already occurred in the school districts in this study, it is important to understand how CSHTs used innovation characteristics and communication in diffusing these policies and how the overall process of diffusion has affected School Principals' efforts in implementing new policies.

According to Rogers, innovations have five characteristics that help to explain their rate of adoption: Relative Advantage, Compatibility, Complexity, Trialability, and Observability. Among these innovation characteristics, prior research would suggest that Relative Advantage, Compatibility, and Observability may be most important to the diffusion of health policies from the district level to the school level (Bussey, Dormody, & VanLeeuwen, 2000; McLaughlin, 1998; Pankratz, Hallfors, & Cho, 2002; Spillane, 2000; Wilson, Pruitt, & Goodson, 2008). Relative Advantage is the extent to which an innovation is believed to be better than a previous idea (Rogers, 1995), similar to the perceived benefits of an innovation as described by Durlak and DuPre (2008). Relative Advantage has been shown to be a critical characteristic of innovations in schools. A study of middle school principals in Texas indicated that principals were more willing to adopt an abstinence-only-until-marriage education program if they viewed it as having important advantages over other sexual health education programs (Wilson, et al.,

2008). Relative Advantage is important in innovation adoption in other settings as well (Civita & Dasgupta, 2007; Faiers, Neame, & Cook, 2007; Saengratwatchara & Elsworth, 2008). For example, physicians in Montreal were more likely to adopt the Cote-des-Neiges Diabetes Pilot Project (CN-Diabetes), a program in which a multidisciplinary team coordinated diabetes care with physicians, provided connections to allied health professionals, followed up with patients, and provided patient education, if the physician viewed it as an improvement over their current approach (Civita & Dasgupta, 2007). This study will seek to understand how Relative Advantage may facilitate health policy implementation.

Compatibility explains how consistent an innovation is with existing values, mission, priorities, past experiences, and the needs of the social system (Durlak & DuPre, 2008; Rogers, 1995) and is analogous with Klein and Sorra's (1996) idea of innovation-values fit. Pankratz, Hallfors, and Cho (2002) used the Diffusion of Innovations theory to study the diffusion of a drug prevention policy within schools. They found Compatibility to be correlated with the districts' policy adoption (Pankratz, et al., 2002). Likewise, Dearing, et al., (1996) found that adopted HIV prevention programs in their study used social marketing materials that were compatible with the beliefs, experiences, and behaviors of their target population to promote health communication. This finding emphasizes the importance of understanding how to promote a program in a manner compatible with the population programmers hope to reach.

Observability explains how visible the results of an innovation are to others (Rogers, 1995). A study of physicians found that they were more likely to use a Healthy Heart Kit (HHK) in their practice if they could observe the benefits of the HHK (Scott, Plotnikoff, Karunamuni, Bize, & Rodgers, 2008). Another study of family physicians found that those who were not constrained by the number of patients they had to see were more likely to use the internet in their

practice if they could see other physicians benefitting from its use (Chew, Grant, & Tote, 2004). These findings may be similar in school settings as well. For example, if a School Principal observes recess before lunch successfully occurring in other schools, she may be more likely to implement that policy in her school, indicating the importance of an innovation's visibility to potential adopters who may more likely put into practice an innovation if they can see how it can be successfully implemented elsewhere (Fetro, 1998; Scott, et al., 2008).

Communication Channels are the next element of diffusion critical to health policy implementation. The diffusion process requires an innovation, an individual/group with knowledge about the innovation, an individual/group without this information, and a communication channel that connects the two (Rogers, 1995). Individuals or groups can be connected through mass media channels (radio, television, etc.) or interpersonal channels (face-to-face interactions) (Rogers, 1995). Communication is essential in raising awareness of the issue of childhood obesity, the need for school intervention, and the newly created policies (Carlyon, Carlyon, & McCarthy, 1998; Fetro, 1998; Marx, 1998). A study of 15 state agencies that were interviewed regarding implementation of the CDC's School Guidelines to Prevent Tobacco Use and Addiction found that diffusion of these Guidelines required communication through a variety of channels over time (McCormick & Thompkins, 1998). Communication (interpersonal and mass media) has also been effective in increasing conceptual and symbolic use of research by clinical nurse educators (Milner, Estabrooks, & Humphrey, 2005). Coordinated School Health Teams are charged with clearly communicating changes in health policies to all school personnel to explain the rationale for the new policies and how they may potentially improve their students' health. Also, school staff, such as teachers and food service directors must communicate with the CSHT to show support or concerns with the new policies. For example,

teachers may disagree with or have hesitations about new policies or programs (Straub, 2009), or food service directors may face challenges in adopting new health policies in the cafeteria (Cho & Nadow, 2004). Open lines of communication can benefit both parties by encouraging discussion and debate, and ultimately finding a way to address the issue of childhood obesity together.

Overall, Rogers' Diffusion of Innovations theory will help to understand the various factors of an innovation that are important to its diffusion and the communication channels involved in informing school personnel of the new policy. This theory suggests that when the various components are in place, early adoption, and therefore implementation, may be more likely to occur. Similarly, when this diffusion process is successful, School Principals may be more likely to implement new policies than in settings where diffusion does not successfully occur.

Durlak and DuPre's Framework for Effective Implementation.

Durlak and DuPre (2008) completed a review of over 500 quantitative studies of implementation, and developed a Framework for Effective Implementation based on this review. Durlak and DuPre define Implementation as "what a program consists of when it is delivered to a particular setting" (2008, p. 329), and include 8 components that are often considered when evaluating implementation (fidelity, dosage, quality, participant responsiveness, program differentiation, monitoring of control/comparison conditions, reach, and adaptation) (Dane & Schneider, 1998; Durlak & DuPre, 2008). In this study, implementation of new health policies will be explored.

As many authors of implementation research have suggested, an ecological approach is necessary to understand how implementation can successfully occur (Shediac-Rizkallah & Bone,

1998; Wandersman, 2003). Durlak and DuPre (2008) follow this advice in creating their Framework for Effective Implementation. The framework includes concentric circles of influence, similar to Bronfenbrenner's Ecological Theory (1979), McLeroy's Social Ecological Model (McLeroy, Bibeau, Steckler, & Glanz,1988) and Davison and Birch's Ecological Model of Childhood Obesity (2001) that surround their central equation for effective implementation. The fundamental features of this model include Organizational Capacity (part of the Prevention Delivery System) and Training and Technical Assistance (part of the Prevention Support System), which are depicted to lead to Effective Implementation when combined. The surrounding circles include Innovation Characteristics, Provider Characteristics, and Community Factors. In addition to developing this framework, the authors created a list of 23 factors that affect the implementation process that correspond with the five levels within their framework. For this study, certain factors related to the Prevention Delivery System and Provider Characteristics will be considered in relation to implementing health policies within three school districts. These factors were identified because of their identification within the school reform literature as critical to successful implementation of new programs, policies, and practices within school districts (Berman & McLaughlin, 1977; Cho & Nadow, 2004; Elmore & McLaughlin, 1988; Firestone, 1989; Hawe, 1994; Lieber, et al., 2000; McDermott, 2004; Valois & Hoyle, 2000).

Framework for Effective Implementation. The Prevention Delivery System "carries out the activities necessary to implement innovations" (Wandersman, et al., 2008, p. 177). Durlak and DuPre focused on factors related to organizational capacity within this system. This model assumed that an organizational entity (either newly formed or existing) must be responsible for implementation of the program/innovation, and therefore requires a certain amount of capacity to

carry out this task (Durlak & DuPre, 2008). Many scholars have supported this assumption, emphasizing the importance of capacity in implementation (Bond, et al., 2001; Cho & Nadow, 2004; Coyle, 1994; Datnow, 2005; Hawe, 1994; McDermott, 2004; Riley, Taylor, & Elliot, 2003). For example, in a case study of Massachusetts's education reform, McDermott (2004) found human, financial, and relational capacity to be important factors for school districts and teachers to implement standards-based reform. Insufficient funding and staff for aligning curriculum with new standards at the local and state levels were barriers to successful implementation (McDermott, 2004). The author also found inter-organizational relationships as critical to implementation to bring in resources the Department of Education was lacking (McDermott, 2004). Similarly, Datnow (2005) found that schools implementing a comprehensive school reform model were more likely to sustain the changes if they had the capacity to do so prior to implementation. This suggests necessary "contextual conditions" such as resources, incentives, and training be in place before attempting to implement new programs or policies to promote sustainability (Corbett, Dawson, & Firestone, 1984).

The framework also identifies several organizational characteristics related to capacity for effective implementation including, a positive work climate, organizational norms regarding change, integration of new programming, and a shared vision (Durlak & DuPre, 2008). There are also more specific characteristics related staffing considerations (leadership, program champion, and managerial/supervisory/administrative support) in the Prevention Delivery System that contribute to organizational capacity (Durlak & DuPre, 2008). Of course, organizational capacity is not enough on its own to ensure successful implementation, but must be supplemented with training and technical assistance for the new program provided by outside entities (Durlak & DuPre, 2008).

A number of these organizational capacity factors may be critical to Coordinated School Health Teams' efforts to implement new policies. First, a Shared Vision has been related to an organization's capacity to promote and sustain change in numerous studies (e.g. Bartunek, Foster-Fishman, & Keys, 1996; Deschesnes, Martin, & Hill, 2003; Foster-Fishman, Berkowitz, Lounsbury, Jacobson, Allen, 2001; Harbert, Finnegan, & Tyler, 1997; Roussos & Fawcett, 2000). CSHTs and districts with a Shared Vision to improve the wellness of children may face fewer challenges implementing new health policies if all members including School Principals, teachers, food service directors, and other school personnel support a common goal. Lieber, et al. (2000) studied 18 public schools, Head Start programs, and community-based programs that were implementing inclusive preschool programs. The authors found that a shared vision among program administrators and teachers as well as a shared vision across agencies was a strong facilitating factor in implementing the inclusion program (Lieber, et al., 2000). They also found that at a systems level, the lack of a shared vision among school and Head Start personnel resulted in a "lack of school system responsibility for providing (inclusive) services" (Lieber, et al, p. 94). For this study, the presence of a Shared Vision for creating a healthy environment for students through the new health policies will be considered in relation to the implementation of new health policies within schools.

Staffing considerations are also key to successfully implementing healthy policies district-wide. Fetro (1998), Allensworth, et al. (1997), Valois and Hoyle (2000) and Weiler, Pigg, & McDermott (2003) note the importance of a Health Coordinator (Durlak and DuPre's program champion) and district level Administrative Support to create healthy changes in schools. Valois and Hoyle (2000) evaluated a CSHP that was implemented in three middle schools in South Carolina. They found that a Program Champion such as a facilitator and

Administrative Support were key elements in creating "a solid foundation for success as a health promoting school" (p. 102). Within individual schools, supportive principles may make implementation smoother than in those schools with principals unsupportive of the overall effort and a strong program champion may facilitate implementation efforts within the district (Valois & Hoyle, 2000).

Moving to the spheres of influence that surround the central components of the Framework, Durlak and DuPre (2008) suggest Innovation Characteristics, specifically Adaptability and Compatibility, play a role in implementation effectiveness. These two characteristics were described previously in Rogers' (1995) section on Innovation Characteristics.

The next concentric circle includes Provider Characteristics. These characteristics include: Perceptions of the need for the innovation, Perceptions of potential benefits of the innovation, Self-Efficacy, and Skill Proficiency (Durlak & DuPre, 2008). For the purpose of this study, Self-Efficacy will be considered because research suggests it is a critical factor in successful implementation (Henderson, MacKay, & Peterson-Badali, 2006; Ghaith & Yaghi, 1997; Hoy & Woolfold, 1993; McLaughlin & Marsh, 1990). Self-Efficacy was first defined by Albert Bandura (1977) as one's belief in their ability to succeed at a certain goal. In an organizational or community context, it is often defined as Collective Efficacy, which is a group's belief in their ability to accomplish a task (Perkins & Long, 2002; Price & Behrens, 2003). In a study of mental health professionals, Henderson, et al. (2006) found that self-efficacy of providers was correlated with adoption and implementation of a prevention program for juvenile fire starters. In the school setting, Bruce and Ross (2008) found that teachers who had gained self-efficacy through adequate training and peer coaching changed their practices and

implemented new math teaching practices. It is possible that School Principals with higher levels of Self-Efficacy for successfully incorporating new health policies may be more likely to implement new health policies in their buildings.

Durlak and DuPre's (2008) other provider characteristics are closely related to a variety of factors already considered (i.e. perceived benefits of the innovation is similar to Rogers' (1995) Relative Advantage), so will not be studied directly.

Overall, Durlak and DuPre provide a complete framework that considers various levels of influence on the implementation process. For this study, the framework will help to understand how factors such as a Shared Vision, a Program Champion, Administrative Support, and Self-Efficacy influence how health policies are implemented by School Principals and teachers.

Current Study

The current study has three primary goals: (1) to understand the factors that facilitate and impede policy diffusion and implementation within school districts, (2) to understand the extent to which factors of Diffusion of Innovations and the Framework for Effective Implementation affect policy implementation, and (3) to examine the role that the Coordinated School Health Team plays in this process. Researchers recognize the power of policy change in creating a healthy school environment, though few have tried to understand how and why adopted policies are or are not implemented in schools (Allensworth, et al., 1998; Grebow, et al., 2000). This study will treat new health policies as innovations because they fit Rogers' (1995) definition of an innovation: "an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (p. 11). This study will add to the literature on Coordinated School Health Teams in a number of ways. First, this study will examine how policies were diffused and implemented in three different school districts as part of a district-wide health innovation. Using a multiple case study approach, both within and across case comparisons will be possible, providing a thorough examination of the implementation process. This study offers a unique contribution to the literature as it uses two theoretical models that address diffusion and implementation while taking an ecological approach to understanding the facilitating and impeding factors associated with this process.

Second, this study will consider the role of the Coordinated School Health Team in diffusing these new policies. Little research exists on CSHTs, and understanding their role is critical to promote their change efforts. Over 70% of schools across the country have these advisory teams in place (Kann, et al., 2007), yet little research has addressed how they function to promote health within school districts. Understanding the role that they play in diffusing

district adopted health policies to individual schools will enhance our knowledge of these teams. This study will also consider how schools' experience with diffusion impacts policy implementation.

Guiding this work are four research questions related to policy diffusion and implementation within school districts. The first research question, (1) How does the diffusion process used by Coordinated School Health Team affect implementation of new policies within schools? and the last research question (4) What role does the Coordinated School Health Team play in policy diffusion throughout school districts? examine the role that CSHTs played in diffusing the new health policies throughout each school district and how their efforts affected implementation. The next research question will address how the various factors of Rogers' (1995) Diffusion of Innovations Theory affect health policy implementation: (2) How are facets of the Diffusion of Innovations theory related to the implementation of health policies within school districts? Finally, the third research question looks at the factors of Durlak and DuPre's Framework for Effective Implementation in relation to policy implementation: (3) How are facets of the Framework for Effective Implementation related to the implementation of health policies within school districts?

Methods

Setting Description

Healthy Futures For Kids. Healthy Futures For Kids[1] (HFFK) is a project funded by the National Governor's Association (NGA) through the Healthy Kids, Healthy America program. Healthy Kids, Healthy America is a program that funds projects across the country to address childhood obesity through policy and environmental changes. A Midwestern state received this one-year grant in 2007 to expand the childhood obesity prevention efforts in the state, and to create a five-year policy agenda to increase access to healthy foods and physical activity (National Governor's Association [NGA], 2007). The overall vision of HFFK is: the state has a comprehensive and coordinated statewide action plan to prevent childhood obesity through policy and environmental changes aimed at increasing consumption of healthy foods, especially fruits and vegetables, and physical activity. HFFK includes three core components: Inventory of Current Childhood Obesity Efforts; Formation of the Childhood Obesity Prevention Workgroup; and School District-Level Policy Implementation. The current study will examine the third core component, School District-Level Policy Implementation.

HFFK funded three school districts with the assistance of the state Department of Education (DoE) and the state Department of Community Health (DCH). Each district was asked to meet with their Coordinated School Health Team (CSHT) to assess the current school health policies using the *School District Nutrition and Physical Activity Policy Assessment Tool.* Each CSHT was made up of a variety of stakeholders, including the superintendent, food service director, teachers (Physical Education and Health education), health services representative,

[1] Program name and school district names have been changed to ensure confidentiality.

school counseling representative, students, parents, and community members. The assessment tool evaluated the current environmental conditions (i.e. nutrition, physical activity) to determine which areas within the district required the most attention. To aid districts in completing this assessment, DoE and DCH created the *Healthy Futures For Kids: Guidance on the Implementation and Evaluation of School District Policies to Improve Access to Healthy Foods and Physical Activity Guide.* This guide provided instructions on completing the assessment, implementing the selected policies, and evaluating the policies following implementation. After completing the assessment and identifying the areas in need of new policy, each district selected a minimum of two policies from the HFFK policy recommendations to plan, implement, and evaluate. These policies required districts to follow the Institute of Medicine (IOM) Nutrition Standards in all changes made district wide. These nutrition standards were much stricter in which foods were and were not allowed to be sold within the school than those previously used by the districts. For example, schools implementing the new a la carte food and beverage standards would no longer sell items that did not adhere to the IOM standards. This would be the case with vending machine foods and beverages, as well as those items sold in school stores or concession stands. To implement the classroom snacks/rewards policies, teachers would no longer reward students with candy or other unhealthy treats, but rather with words of encouragement or non-edible gifts. Similarly, classroom parties would not include typical unhealthy options such as cupcakes and cookies, but rather fun activities and healthy snacks. For those schools choosing to implement the quality PE curriculum, this would include a consistent program throughout elementary and high school that kept students active during the assigned PE period. Finally, schools implementing recess before lunch would rearrange schedules and make necessary staffing accommodations to ensure all students have recess before their lunch period.

For all of these policies, district-wide support was necessary, including CSHT members, School Principals and Administrators, classroom teachers, and food service directors.

Three low-income school districts in the state (Northland, Pinecrest, and Middleton) were awarded $25,000 mini-grants to adopt school district level policy changes through the HFFK project. Districts selected their policies in the spring of 2008 and began to implement the policies during the 2008-2009 school year. Technical Assistance from DoE and DCH continued through the school year as districts worked on implementing their new policies. This study examined the diffusion of these policies from the CSHT to the individual schools within the district after district adoption had occurred. One policy was selected to examine for each school district. Policies were selected based on the amount of Principal control associated with the policy. For example, classroom snacks/rewards allows for much more school level control than a la carte food and beverage standards. Principals encourage teachers to make changes to the types of rewards they give to students and the snacks allowed in the classroom for school parties or birthdays. In contrast, the a la carte food and beverage standards are implemented at the district level because one vendor provides food to all schools, and menus are created by district personnel, allowing little to no variation at the school level.

Northland School District. The Northland School District selected four policies to implement in their district. These included: a la carte food and beverage standards for all schools, classroom snacks/rewards standards for all grade levels, recess before lunch for elementary schools, and vending machine food and beverage standards for all schools. This study examined Northland's experience diffusing and implementing the classroom snacks and rewards policy.

Pinecrest School District. The Pinecrest School District selected three policies based on their district wide assessment. These policies were a la carte food and beverage standards for all schools, quality physical education curriculum for all grade levels, and concessions/vending/school store standards for all schools. Pinecrest chose to address both nutrition and physical activity areas to make a comprehensive change within their district. This study examined Pinecrest's experience diffusing and implementing the quality Physical Education curriculum policy.

Middleton School District. The Middleton School District selected two policies to address within their district. These policies included: a la carte food and beverage standards for all schools and classroom snacks/rewards standards for all grade levels. At the time HFFK began, Middleton was in the beginning phases of developing their Health and Wellness policies for the district. By targeting a la carte menu items with the new IOM Nutrition Standards in the cafeteria, the district hoped to demonstrate their commitment to obesity prevention by replacing the current offerings with nutritionally sound options. In addition, changing classroom snacks/rewards to non-food alternatives would hopefully instill healthy reward and eating patterns early in life. This study examined Middleton's experience diffusing and implementing the classroom snacks/rewards standards policy.

Study Procedures

Sample. A total of ten individuals were interviewed across the three school districts. In each district, similar stakeholders were interviewed, including the main grant contact, a principal, and a key implementer of the policy (i.e. teacher or nurse). In Northland, the Main Grant Contact, a Principal, and a School Nurse were interviewed. In Pinecrest, four individuals were interviewed. The Main Grant Contact was interviewed with a Nurse who is also very involved

with the Coordinated School Health program in the district. In addition to these individuals, a Principal, and a PE Teacher were interviewed. Finally, in Middleton, the Main Grant Contact, a Principal, and a Teacher were interviewed. The Grant Contact in Middleton was not the original contact for the HFFK grant, but took over well into the grant period. She had been involved with HFFK prior to taking over as the main contact. While the within case N was small, there was strong agreement across informants and convergent evidence from the HFFK final reports from each district.

Recruitment. The three main contacts from each school district were initially contacted via email to briefly describe the project and the investigator's hope to include their district in this study. Two of the school districts immediately responded and agreed to participate, while the third required contacting another individual who had taken over the role of the lead contact for the HFFK project, but also agreed to participate. These individuals nominated a School Principal and a teacher (a nurse in the case of Northland) who were knowledgeable about the new policy to be included as interviewees.

Members of the CSHTs were sent a letter of intent via email (see Appendix E), inviting them to participate in a short interview. Within one week after sending the letters, potential CSHT participants were contacted via telephone to solicit their participation and to discuss the study. Every individual who was contacted agreed to participate and an interview was scheduled over the phone. Interviewees were then sent a consent form (see Appendix F) explaining the purpose of the study, the requirements of the participant (i.e. length of interview), its potential risks and benefits, and their right as a participant to confidentiality as well as their right to end the interview at any time. The consent form asked participants to agree to audio recording the interview. Interviewees returned the consent forms via email or mail.

Interviews. Semi-structured, open-ended interviews were conducted via phone with CSHT participants. CSHT members' interviews ranged from 20 to 42 minutes and discussed how new health policies were diffused to schools within the district, key factors that facilitated the implementation of new health policies at the school level, challenges/barriers to implementation, innovation characteristics related to implementation, communication channels in diffusing health policies, the capacity of the CSHT and the schools in implementing these policies, the district climate (i.e. administrative support) with regards to new policies, how and what changes occurred within the district and individual schools, and the role of the CSHT in diffusing the policies to individual schools within the district (see Appendix G for interview protocol). At the beginning of each interview, the interviewer reminded the participants of their rights as a participant and summarized the consent form they had signed.

The Principal Investigator of this study conducted all of the interviews from her University office. Interviews with CSHT members were recorded and transcribed verbatim by the interviewer or a trained undergraduate assistant and then quality checked against the original recordings. All identifying information was removed to ensure confidentiality, and audio files and transcriptions were saved on a password-protected computer in the investigator's locked office. Cleaned interview transcripts were downloaded into NVIVO software for analysis. Hard copies of transcripts will be destroyed five years after the study and electronic files will be destroyed seven years after the study ends.

Archival Data. Final reports submitted by each of the school districts as part of the HFFK grant were included. The data analyst used the interview protocol as a guide to explore these documents. Data that answered the interview questions was coded according to the interview coding framework that was developed and this data was included in the case summary for each

district. Documents were reviewed and compared to interview data as a way to triangulate the sources of data.

Data Analysis.

A multiple case study design was applied and both across case and within case analyses were conducted. Across case analyses compared results across school districts to look for similarities and differences in diffusion and implementation of new health policies. Within case analyses compared data from CSHT interviews and HFFK final reports within a single district.

Within Case Analysis. Within-case analyses were used to analyze data from all CSHT members that were interviewed within a single school district. Compiling data in this manner allowed for consideration of contextual factors that may have impacted policy implementation. Deductive content analysis was used to code interview transcripts from CSHT members. Deductive content analysis is used when data is coded according to a proposed model or theory (Elo & Kyngas, 2007; Marshall & Rossman, 1995; Mayring, 2000; Patton, 2002). Rogers' (1995) Diffusion of Innovations and Durlak and DuPre's (2008) Framework for Effective Implementation provided a guide for coding the interviews. Interviews were coded deductively to understand how each component of these models affected implementation. Once the data was coded into the larger 'bins' of the models, inductive coding occurred to further understand the process of diffusion and implementation (See Appendix H for Complete Coding Framework). The Principal Investigator initially coded the data and the coding scheme was discussed and checked by the analyst's advisor. The analyst's advisor provided direction and suggested coding revisions throughout the data analysis process. Data matrices (Miles & Huberman, 1994) were used to compare individuals within a school district and to identify patterns and contradictions.

Once data matrices were created from the interviews, HFFK final reports were analyzed to compare what interviewees said with what the reports included. Each report was coded using the coding framework created from the interviews. Data from these reports was incorporated into the case summaries for each district.

Across Case Analysis. The data matrices created for each district were compared across the three districts to explore both similar and different experiences in implementing the new health policies. This allowed for comparison of successful ways to diffuse and implement the new policies regardless of school context or policy type.

Data Triangulation. One way to triangulate data is to use multiple sources of data or methods for verification. Data was compared within cases across CSHT members for accuracy of how policies were diffused and implemented, as well as for verification of what each individual says. Archival data in the form of final reports was used to validate interview data.

Results

Overall, the interview and final report data revealed that certain components of Rogers' (1995) and Durlak and DuPre's (2008) models influenced the implementation of health policies in the three school districts. Without these core components present, implementation did not occur. Organizational Capacity, including Communication, a Program Champion, and Administrative Support, was one important component of successful implementation. Organizational Capacity is part of the central equation that explains successful implementation in Durlak and DuPre's (2008) model. Next, Innovation Characteristics (including Compatibility), as well as Provider Characteristics (including Self-Efficacy), the next concentric circles surrounding the central equation, were important components for implementing the new health policies across school districts. Additional neighborhood contextual factors were also explored (part of the Community Factors level), but did not provide insight into how they may affect implementation because the surrounding contexts were similar across school districts. The importance of the inner levels of this model suggests their centrality regardless of the surrounding context. Two of the districts in this study successfully implemented the new health policies, while one school district did not. These factors explained the differences between successful and unsuccessful implementation. Both an across case analysis and a within case analysis were conducted for all of the interviews and HFFK final reports. First an across case analysis will be discussed, followed by a within case analysis for each individual district.

Across Case Analysis

Across the three school districts that were included in this study, two of the districts had success implementing the newly adopted policies, while one did not. Northland School District successfully implemented the Classroom Snacks and Rewards policy throughout the district, and

Pinecrest School District successfully implemented the Quality PE Curriculum policy. These districts did vary in their level of implementation, but overall had success. Northland had full implementation of the new Classroom Snacks and Rewards, while Pinecrest had a high level of implementation, but not all teachers fully followed the Quality PE Curriculum policy. Middleton did not successfully implement the Classroom Snacks and Rewards policy throughout their school district. Overall, the two theories explored in this study, Rogers' (1995) Diffusion of Innovations and Durlak and DuPre's (2008) Framework for Effective Implementation, appear to explain what is going on in each district. The presence of the theory components did affect implementation of the new policies. In the districts where Rogers' and Durlak and DuPre's model components were present, implementation occurred, while in the district that lacked these components, implementation of the new health policy did not occur.

Evidence of the Importance of Rogers' and Durlak and DuPre's Models in Facilitating Policy Implementation.

In this study, four research questions explored the process of policy diffusion and implementation and the factors that facilitated and impeded this process. These questions included: How does the diffusion process used by the Coordinated School Health Teams affect implementation of the new policies within school districts?, How are facets of the Diffusion of Innovations theory related to the implementation of health policies within school districts?, How are facets of the Framework for Effective Implementation related to the implementation of health policies within school districts?, and What role does the Coordinated School Health Team play in policy diffusion throughout school districts?. The answers to these four questions will be explained below

Coordinated School Health Teams and Diffusion of Health Policies

The first research question, 'How does the diffusion process used by the Coordinated School Health Teams affect implementation of the new policies within school districts?' and the last research question, 'What role does the Coordinated School Health Team play in policy diffusion throughout school districts?' target the process used by the CSHT in diffusing the new health policies throughout the school districts. Findings from this study suggested that a strong Coordinated School Health Team was a crucial component to facilitating policy diffusion and implementation. In both districts that successfully implemented the new health policies, the CSHT diffused the policy by communicating through multiple avenues, and presenting the new policy as both better than previous, non-existent policies and as compatible with the current norms within the schools. Rogers (1995) identifies these as important components of successful diffusion. Spreading the new policy in this manner ensured that all stakeholders involved with the new policies were aware of the new requirements and clearly understood what was needed to implement the new policy.

In Northland, the CSHT existed at both the District and School levels. These teams played a central role in communicating the new policy to teachers and principals, to ensure everyone had the information they needed to fully understand the new policy. Team members also acted as a resource to support implementation. CSHT members helped other teachers in the district by "providing ideas…[and] being models of what was expected" (Principal, Northland). Providing support to other teachers in the district helped to both spread the new policy and to support implementation by offering assistance and providing ideas to other teachers working on the new policy. Interviewees in Northland explained that teachers who were members of the CSHT "talk to the other teachers" about ideas for healthy parties and rewards and encourage other teachers to implement the new policy in their classrooms (Nurse, Northland). Each

interviewee noted the importance of the CSHT in both spreading and assisting in implementation of the new health policy.

Pinecrest had a district-wide CSHT. This team was responsible for getting the HFFK grant and advocating for the new policy and all other health efforts going on in the district. The CSHT assisted in diffusion through the "presentations [they] made at principal meetings…finding and writing for grants" and working with PE teachers to select the best curriculum for their district (Main Grant Contact B, Pinecrest). The team helped the PE teachers select a new curriculum that was compatible with many of the things they were already doing, but was an improvement over the inconsistent curriculum that was in place. Involving teachers in the decision process and providing them with thorough training in the new curriculum helped to spread the new policy throughout the district. Principals were also made aware of the new policy through the District Wellness Policy, another way the CSHT worked to spread the new policy. Working closely with the teachers who would be implementing the new policy was a critical way to ensure implementation would occur. PE teachers learned what was expected of them and how to use the new curriculum in their classes. Overall, this team played a central role in both spreading and helping to implement the new health policies in these successful districts.

In Middleton, there was a district CSHT that was "fairly active" for a short while when the HFFK grant began, but since has dissipated (Main Grant Contact, Middleton). A teacher in Middleton talked about the Fit Kids team that worked on the Fit Kids Initiative, but did not work on the classroom snacks/rewards policy specifically. The members of the team acted as "a model for the other teachers and to be there as a resource for them" (Teacher, Middleton). She talked about their importance in the Fit Kids Initiative, providing support for the centrality of a strong CSHT, but Middleton did not have a CSHT working toward diffusing and implementing

the classroom snacks/rewards policy so it was not successful in implementing the new HFFK policy.

Factors that Distinguish Successful Implementation from Less Successful Implementation of New Health Policies in School Districts

A number of the factors from Rogers' and Durlak and DuPre's models played a central role in facilitating implementation of the new policies in the Northland and Pinecrest School Districts. The absence of these factors in Middleton may have contributed to the lack of implementation in that district. Table 2 includes a summary of the key findings, including the presence or absence of each model component across the three school districts in relation to the policy they selected.

The Role of Roger's Diffusion of Innovations Theory

Rogers' (1995) Diffusion of Innovations theory includes four components, Innovation Characteristics, Communication Channels, Time, and characteristics of the targeted Social System, this study considered the first two. Rogers' (1995) explained the need for communication through various channels (i.e. mass media, interpersonal) in order to spread an innovation throughout a system. Likewise, certain innovation characteristics, such as Relative Advantage, Compatibility, and Observability may facilitate the diffusion of an innovation. The study reported here considered how these components of Rogers' model affected implementation of the new health policies adopted by each school district through the Healthy Futures For Kids Grant.

Communication Channels. To begin, clear, direct communication through multiple venues was very important to effective policy implementation in the school districts. In both Northland and Pinecrest, direct communication to the stakeholders affected by the new policy

appeared to be an important aspect of communication. For example, in Northland, the Principals received information about the policy through a district-wide meeting and were provided with a handbook that included information about the new policy. Teachers were important stakeholders because they had to adjust student rewards and suggest healthy alternatives for parties, so they were educated about the policy in several ways. They were "given a copy of the Wellness Administrative Rules policy and a School Food Guideline handout and…a copy of *Tips for Tools Alternatives for Using Food as a Reward*" and were informed of the new policy by their principals (Final Report, Northland). Meanwhile, parents needed to know about the new policy so they could provide healthy snacks for birthday celebrations and holiday parties. They were made aware of the changes in classroom snacks through letters home and providing the policy in the student handbook (Final Report, Northland). Each interviewee noted these modes of communication as clear and effective. Northland's Nurse sums it up in saying "I don't know how much more effective we could've been." Reaching out to all of these stakeholders was an effective way to communicate the new policy.

In Pinecrest, the PE teachers were most affected by the new policy so they received the most communication. These teachers played a central role in selecting the policy, and once adopted, received a clear, written curriculum and multiple training sessions for using the new PE curriculum. Pinecrest's PE teacher explained "rather than just sending out a letter and saying this is what we are doing, actually have us all come and discuss it and see if we were all on board" helped communicate the importance of the new policy and ensure teachers understood the new curriculum and how to implement it.

In comparing the three districts, it became evident that clear communication was a crucial factor that separated the successful districts from the unsuccessful one. In Middleton, there was

no clear communication about the policy to the teachers who were responsible for implementing it. Principals were presented with the new policy by the HFFK coordinator, but were not held accountable for passing on the information and ensuring teachers in their building knew about the new policy. Middleton's teacher made this point in saying "I don't think the district has done a good job of saying here's what the policy is regarding snacks or food as a reward and even just making teachers aware of it." Middleton's final report notes one of the barriers to success as a "lack of knowledge regarding the policy," indicating poor communication within the district. Without clear communication of the new policy to those stakeholders affected by the policy, implementation is unlikely to be successful.

Compatibility. Another important factor in facilitating implementation of the new health policies across successful school districts was Compatibility. It was evident through the interviews with various stakeholders that health was a priority within the two successful districts, Northland and Pinecrest. Each stakeholder talked about various health initiatives that were going on at the time that the new policy was adopted and subsequently implemented. In Pinecrest, the main grant contact talked about how they "made a lot of changes in the district, like you know, we made changes about what foods were available in school stores, what foods were served on the a la carte line in the cafeteria, um, you know, we're encouraging teachers to have healthier foods at parties, and so all of this kind of works together." Northland's Nurse talked about the fact that "at the same time we were looking at other avenues to promote health and well being," providing evidence for the prominent role health promotion played in the district. With a district-wide awareness and support for improving the health of students, implementing the new policy around classroom snacks/rewards or PE curriculum fit within the current norms in the district.

In contrast, in Middleton health promotion was not a priority among staff, and the interviewees in this district did not talk about many other health initiatives going on at the time the new policy was adopted. The new policy around classroom snacks and rewards seemed to "get buried amongst so many other things that go on in the school district" (Main Grant Contact, Middleton). Since few health initiatives were going on at the time and there was little focus on health, the new policy was not compatible with the current school context and seemed to get "buried" rather than prioritized. Widespread support and norms around health promotion across the district seem to be an important precursor to the success of new health policies.

The Role of Durlak and DuPre's Framework for Effective Implementation

Durlak and DuPre (2008) provided an ecological model of factors that affect implementation. This model includes Organizational Capacity and Training and Technical Assistance at its core, and is surrounded by Innovation Characteristics, Provider Characteristics, and Community Factors. The study reported here explored components of Organizational Capacity (Shared Vision, Program Champion, Administrative Support) as well as one Provider Characteristic (Self-Efficacy) to understand how these factors affected implementation of the new health policies within school districts.

Program Champion. Both Northland and Pinecrest interviewees identified strong Program Champions who led the effort to implement the new health policies throughout the district. In Northland, all interviewees mentioned one individual, the District Health Coordinator, as the one championing the effort to implement the new policy within the district. This individual "helped create the policy itself so she had a lot of the direct information…[was] available to answer questions" about the new policy (Principal, Northland), and she "chaired the meetings…provided all the information for the [Healthy Futures For Kids] grant" (Main Grant

Contact, Northland), playing a central role in supporting the effort throughout. In Pinecrest, interviewees named a number of individuals who played a central role in health promotion across the district. These individuals were visible across the district, with the School Improvement Coordinator acting as "the soldier on the forefront" (Principal, Pinecrest) who advocated for the new policy, and worked with the other Program Champions. The main grant contacts noted that said they "worked closely with the School Improvement Coordinator who was in charge of the PE teachers" (Main Grant Contact A, Pinecrest). These individuals worked collaboratively to champion the effort and assist in implementation at the teacher level across the district. Having multiple individuals promoting the district health efforts was an effective way to ensure implementation of the new policies occurred.

Both Northland and Pinecrest had recognizable Program Champions who led the effort to implement the new policies within their districts. Middleton interviewees on the other hand, were unable to name an individual who clearly championed the effort and advocated for the new policy. An interesting point made by the Main Grant Contact was that she thought there was "sometimes" a strong leader, but "things would go up and down." Middleton's final report mirrored this observation in noting "the lack of Program Champion and invested partners was a detriment to our success." A lack of consistency in the leadership around the new policy may have affected how successful they could be because there was not a strong leader throughout the implementation process working to promote and support implementation of the new policy. The successful districts had clear, consistent Program Champions who played a central role in promoting the new policy and aiding implementation. Middleton lacked a strong leader, which was a major contributing factor to their unsuccessful implementation.

Administrative Support. Administrative Support at both the District Administration and Principal levels was crucial to successful implementation of the new health policies. In both Northland and Pinecrest, interviewees talked about the new policy as a mandate across the district. Mandating the new policies at the administrative level seemed to help support "trickle down" to the principal and then the teacher levels (PE Teacher, Pinecrest). Principal support for the classroom snacks/rewards policy aided in implementation because "principals supported it within our buildings, that's when teachers started doing it as well" (Principal, Northland), while District level support allowed "the cabinet…[to] speak to any of the board members about the importance of the policy" (Main Grant Contact, Northland). Teachers could also explain that the change was district-wide, making it easier to enforce the policy with resistant parents. In Pinecrest, mandating the new PE policy made PE curriculum more important to school Principals, which aided implementation. Since Principals did not typically focus on PE in the past because it was not tested on the MEAP, the new mandate brought PE into focus and required Principals to be aware of what their teachers were doing. Pinecrest's final report asked PE teachers "Is there regular periodic evaluation by administrators of the physical education program and teacher performance?" to which all teachers responded 'Yes.' Regular monitoring of the new PE curriculum by the administration shows a vested interest in ensuring the curriculum is being followed. Support at both the District Administration and Principal levels was an important facilitator of implementation across successful districts.

In Middleton, Administrative and Principal support was talked about by interviewees, but not in the same way as the other districts. Each interviewee felt there was support for the new policy, but did not talk about how this support manifested itself. When asked about the impact of principal support, the Main Grant Contact gave a hypothetical answer, stating, "that would be

important, you can't just say 'do this.' You would have to give a sort of a toolbox to do it." Middleton's final report also explained, "we also strongly believe that Administrative support is essential to the enforcement of healthy changes in the district." The lack of strong Administrative and Principal support affected enforcement of the policy and successful implementation.

Self-Efficacy. In the Northland and Pinecrest School Districts, the principals and teachers felt they had the knowledge and skills necessary to implement the new policies. Principals in Northland were prepared to implement the policy by having "their packets they sent home ready to go" with information about the new classroom snacks and rewards policy (Main Grant Contact, Northland). Principals were also prepared to talk to parents who brought in inappropriate classroom snacks, explaining the new policy and why it was implemented. Similarly, the PE teachers in Pinecrest had sufficient training and a clear, written curriculum, which prepared teachers for implementation. The message of Self-Efficacy for implementing the new policies was consistent across interviewees in these two districts.

In contrast, the Middleton School District did not have a consistent view of the Self-Efficacy of principals for implementing the new classroom snacks/rewards policy. The main grant contact did not feel confident that principals had the necessary "education and support" needed to carry out the policy. Middleton's teacher felt principals had "the resources to pass the information along" but did not actively enforce the policy. A strong sense of Self-Efficacy was not evident in Middleton, which may have affected their ability to fully implement the new policy.

Barriers to Diffusion and Implementation

Interviewees from each district were asked about the barriers they faced in spreading and implementing the new health policies. In both districts that successfully implemented the policy, all interviewees noted various types of resistance from both parents and teachers around the new health policies.

Parents and teachers were resistant to the new policies because they claimed they were challenging to follow, requiring extra thought and in some cases cost. In Northland, some parents felt the new policy around classroom snacks was more challenging to implement because "you have to be a little bit more creative and it costs a little bit more money to you know, get some of the healthier options" (Principal, Northland). Similarly, teachers also found the policy more challenging based on complaints the main grant contact heard. Teachers felt "it's so much easier to give a kid a tootsie roll after completing a hard math assignment than it is to try to find a pencil or do something" (Main Grant Contact, Northland).

Next, many teachers and parents were resistant to the new snack/reward policy because they did not feel the school should dictate how to celebrate birthdays and holidays and thought the policy was unnecessary. Northland faced resistance from both parents and teachers. Parents "did not like the idea that we were telling them that they couldn't celebrate birthday parties with food" (Main Grant Contact, Northland). Teachers were also resistant to the new classroom snacks/rewards policy and felt they "should not be so prohibitive…and we should just be teaching moderation" (Main Grant Contact, Northland). Much education about the importance of the new health policy was necessary to overcome this fierce resistance.

Finally, one more form or resistance was evident around tradition and habit, and the way things were prior to the new policies. For example, traditional ideas around "what they thought you had to have to have a good party" were challenged with the new policy that required

classroom snacks for parties to adhere to the IOM standards (Teacher, Northland). "Some teachers and parents did not agree with the policy. They felt strongly that parties and birthday celebrations should include sweet treats" (Final Report, Northland). Prior to the Classroom Snacks and Rewards policy, birthdays and holidays were celebrated with cookies, cupcakes, and other sweet treats. Moving away from that norm caused much resistance from parents and teachers. With regards to the PE curriculum policy, Pinecrest faced resistance from older PE teachers who "have been teaching 30 to 40 years and they have done their way for that long" (Teacher, Pinecrest). Though this initial hesitation was present, the PE teacher explained that "even the ones that don't follow it totally have taken parts of it", suggesting the initial resistance may have been overcome to some degree.

Another challenge to implementation of the new PE policy was the physical space in the district. On Pinecrest's final report, 75% of PE teachers answered 'No' when asked "are indoor and outdoor facilities sage and adequate (so that physical education classes need not be displaced by other activities?". In an open-ended question about the weaknesses of the current program, multiple responses addressed this issue, citing "time/space" "availability of gym (lunch, assemblies, programs, etc.)" and "gym size" as challenges they faced (Final Report, Pinecrest). Pinecrest's principal noted, "I need my own gymnasium, not one that's a gym and a cafeteria and the assembly." She explained that this was a common problem across buildings in the district, suggesting the issue may not have anything to do with the actual curriculum, but rather the resources available in the district.

The main message that came through in interviews with Middleton about the barriers to implementation was that the message didn't get out and the policy around classroom snacks and rewards was not a priority in the district because there are other things going on at the same time.

The main grant contact talked about how "something like this just gets buried amongst so many other things" while Middleton's principal felt "just overwhelmed with so many other things to do." The focus on other district issues may have been related to the lack of communication about the new policy, with both issues affecting implementation.

Neighborhood Context

Interviewees were asked about the neighborhoods surrounding their school districts with regards to factors that facilitated a healthy lifestyle and those that made living a healthy lifestyle a challenge. Table 3 provides a summary of these factors. To begin, all districts noted a number of neighborhood contextual factors that facilitated living a healthy life. All interviewees noted the availability of health promoting services or resources. These included full service grocery stores, free-use parks and recreational facilities, community centers, and opportunities to be involved in various activities (i.e. sports). In addition to these resources, interviewees discussed community norms for sharing resources and providing support to encourage healthy habits. In both Northland and Middleton, interviewees talked about local agency support and local initiatives for promoting health, which included things like partnerships with local hospitals and health promotion by local organizations within the school. Northland's grant contact talked about one partnership: "we're working with our local hospital as a community organization to look at the barriers of not being able to provide fresh fruits and vegetables." Northland's nurse talked about a program that helped mothers on WIC in which an advocate hired by the health department would take mothers "grocery shopping to show them what they could buy and what was good." Similarly, Middleton's teacher talked about her district's relationship with the local Boys and Girls Club. When the school received "some extra playground equipment we needed space to put that. They were okay with us putting that on their land and saying that during

school hours we can use that and then after school hours they would be able to use it as well" (Teacher, Middleton). Northland's Principal provided a great example of how local businesses supported the health promotion message within the school: "we've got a carnival coming up this Friday for example, and one of the things we talked about was a cakewalk and when we talked about the cakewalk, we then in turn talked about the fact that it was cake and that was unhealthy. So we started brainstorming what we could do, so we came up with a gift card walk instead." These examples show various types of support from a number of local agencies surrounding each district.

Though many supports existed to promote health within the neighborhoods, there were also a number of barriers to living a healthy lifestyle. A lack of resources was a consistent theme across interviewees that made living a healthy lifestyle a challenge. At least one interviewee in each district talked about the prevalence of low-income families in their district. Northland's nurse explained "approximately 70 percent of our students are on free or reduced lunches…so it's really hard for a lot of parents who are struggling with a limited budget to really, sometimes eat healthy." Pinecrest's Principal echoed this idea when talking about the low-income families in her district, "I think with the use of food stamps it's cheaper to buy the non-healthy foods than it is the healthy foods." All three districts had very high levels of students eligible for free or reduced price lunches. In Northland, 69% of students were eligible, in Pinecrest, 66%, and in Middleton, 77% (Center for Educational Performance and Information, 2009). Low-income families in each district struggled to provide healthy foods to their children and support healthy eating habits that promote health. Each district also talked about the high cost of healthy foods, which made it a challenge for parents to provide healthy alternatives to their families.

Middleton's Principal explained, "I think some families would say it's expensive sometimes to purchase fresh fruits and vegetables. I hear that from families."

In addition to a lack of resources, Pinecrest and Middleton interviewees discussed the difficulty in accessing healthy alternatives. Pinecrest emphasized the unsafe neighborhoods that surround their schools, making it a challenge for students to go outside and play or exercise. Pinecrest's teacher explained, "We are in a neighborhood but it's mostly three major apartment complexes that aren't too safe for the kids to go out and exercise and run around. It's kind of a high crime area." Middleton interviewees added to these challenges in describing the difficulty in finding transportation to grocery stores that are not nearby: "some of our families don't own vehicles so that may be a little bit trickier to get grocery shopping done" (Teacher, Middleton). Both Northland and Middleton talked about a lack of healthy alternatives in their surrounding areas, including the presence of fast food restaurants and the lack of full service grocery stores, suggesting these two districts may have neighborhoods located in food deserts. Northland talked extensively about the prevalence of fast food near the school and the lack of healthy restaurants in the surrounding area: "there's a lot of fast food restaurants in [Northland]" (Principal, Northland), "approximately five blocks away from where we are at, maybe not even that much is a main strip where all of our fast food chains are" (Nurse, Northland). The prevalence of fast food was evident in Middleton as well when Middleton's teacher explained, "within a mile of school you know, I can think of ten different fast food places." Easy access to fast food and a lack of healthier restaurant options makes healthy eating a challenge in these districts. Interviewees also talked about the lack of full service grocery stores in certain areas of the district. This issue seemed especially prevalent in Middleton. The grant contact there explained "as far as grocery stores, we have, a lot of our families live on the southwest corner of

[Middleton] and there are not full service grocery stores and there's a lot of party stores and liquor stores so you know, not easy to get fresh fruits and vegetables. Northland's grant contact recalled a similar challenge in her district explaining that "full service grocery stores are limited."

The last type of challenge that respondents talked about was social norms around unhealthy behaviors including students' preference for playing video games and a lack of healthy role models. Middleton and Pinecrest talked about these issues. Middleton's grant contact explained:

> "you know we don't really have good models out there for the kids. I think a lot of our kids just go home and watch TV or are you playing video games or whatever but they aren't active and I don't think there's a lot of role modeling for them on how to do that, how to be active. I think that's a really important, I think we could definitely work on that."

Pinecrest's PE teacher echoed this idea in saying "some kids just like staying in and playing video games which is another problem with the kids these days…a lot of the parents aren't the best role models either so they see their parents aren't demonstrating a healthy lifestyle and the apple doesn't fall far from the tree with a lot of the students." Social norms around unhealthy behaviors may be difficult to overcome and encourage more healthy habits such as a balanced diet and increased physical activity.

Neighborhood context was explored to try to understand how it may have impacted health promotion within the schools, either facilitating health promotion or making it more of a challenge. Neighborhood factors facilitating and challenging a healthy lifestyle were similar across districts, providing little evidence to suggest the surrounding community could have impacted implementation of the health policies. To try to further understand the context within which districts were working to promote healthy changes and the challenges they may face,

district Michigan Educational Assessment Program (MEAP) scores (elementary grades 3-5) and dropout rates (high school) were considered. Looking at these scores and rates may provide insight into what schools are focused on. For example, if one district had a substantially higher drop out rate or much lower MEAP scores, they may be forced to focus their attention to those pressing issues and promoting the implementation of the new health policies may be lost. Across districts, MEAP scores were quite similar for grade levels and school subjects. Table 4 provides a breakdown of the percentage of students who met or exceeded standards in grades 3-5 across districts in Math and Reading. Cohort dropout rates for 2009 were also examined. Northland had a dropout rate of 17.11%, Pinecrest's dropout rate was 14.60%, and Middleton's rate was 18.92% (Center for Educational Performance and Information, 2009). Exploring MEAP scores and dropout rates may have provided some insight into larger issues the district was facing that may have affected their ability to focus on the health promotion efforts in the district, but the data on these scores and rates does not provide any alarming differences that provide insight into the issue.

Overall, each district faced a number of contextual challenges that may make it difficult to implement new policies. Though many of the neighborhoods surrounding the schools did have resources to promote health, they all also had many factors that made it difficult. Similarly, each of the districts face high drop out rates and MEAP scores that could use improvement, which could take attention away from health promotion. Since making healthy choices in the community was a challenge, promoting health within the school was even more critical. If students are exposed to unhealthy options outside of school, they may develop unhealthy habits. Schools that take on the new health policies can provide health education and model healthy behaviors to help influence students' choices. Through these challenges, two of the districts did

find success, and the proposed models provide evidence for the centrality of many of their components in ensuring success. So, despite the numerous challenges in each district, implementing new health policies is possible if districts adhere to Rogers' and Durlak and DuPre's models to facilitate the implementation.

Within Case Analysis

Within case analyses were conducted to understand how the policy diffusion and implementation process manifested in each individual school district. This section provides specific evidence from each district to support the importance of Rogers' (1995) and Durlak and DuPre's (2008) models in facilitating implementation. An in-depth look at each school district's experience as well as the local context surrounding the districts is explored below.

Northland School District

Northland School District selected the Classroom Snacks and Rewards policy as one of their policies to adopt district-wide, and had tremendous success implementing this policy. Within the Northland School District, the policy primarily applied to the lower elementary schools, as these schools are the only ones to have classroom snacks (i.e. for classroom parties). All of the interviewees agreed that all the schools were fully implementing the policy, with the exception of occasional sneaking in of unhealthy foods. For example, Northland's Principal commented, "with regards to snacks at the elementary level, unless a parent sneaks something in, schools are complying 100%. Can't say that it never happens that things are snuck in". Northland's Nurse agreed and talked about how "a couple of years ago when we were implementing this, I had a few teacher who really couldn't understand the need for it…it took…making it an absolute policy um, that I think they finally have come to the realization that we mean business." Full implementation of this policy includes "creative ideas used in place of

unhealthy food choices which include handing out stickers, pencils, toothbrushes, offering fruit, rice cakes with peanut butter, granola, apple cider, and yogurt" (Final Report, Northland).

Though implementation is in full force now, the first year of the policy did not have as much success. Northland's final report (2008-2009 school year) indicated that only 40.5% of teachers were implementing the classroom snack policy and 48.5% were complying with the classroom rewards policy. These numbers reflect all schools within the district, so may be lower than what was actually happening in the lower elementary schools where the policy applied. Northland's final report addresses the low numbers and makes a commitment to improve implementation of the new policy:

> "With this survey information, we will continue to evaluate identified areas of concern, and implement, reinforce, and maintain the policy…Through the Coordinated School Health model and with Administrative and Board support, the district CSHT will continue to reinforce, evaluate, and make changes as necessary to comply with the district wide policy. This policy will not sit on a shelf, but rather be a living document that represents the mindset of the [Northland] Public School District."

Northland truly did set out to accomplish their goal, and over the past two years, schools have increased implementation and all teachers are now complying with the policy. Promoting healthy celebrations and rewards through non-food and healthy food focused parties and celebrations has become the norm in the Northland School District through implementation of the new policy.

When asked open-ended questions around what helped spread and implement the policy ('What helped to spread the new policy to schools across the district?' and 'What helped to implement the new policy within schools?'), interviewees talked about a number of the components of Rogers' (1995) and Durlak and DuPre's (2008) models, addressing many levels of Durlak and DuPre's framework. Communication about the policy was a critical element of successful implementation. Information about the new policy was communicated to all

stakeholders (principals, nurses, teachers, parents, students) in a variety of ways (meetings, handouts to staff, letters home). Also, characteristics of the innovation (Classroom Snacks and Rewards policy) were noted as important, including that the policy was part of a larger health effort going on in the district (Compatibility) and it was an improvement over the way classroom snacks/rewards were in the past (Relative Advantage). These ideas fall within the Innovation Characteristics ring of Durlak and DuPre's (2008) model. Interviewees also mentioned ideas related to organizational capacity, the innermost circle of the model, such as Administrative support of the new policy which led to consistency across the district (Durlak & DuPre, 2008).

Interviewees were then asked specific questions around the various components of Rogers' (1995) and Durlak and DuPre's (2008) models to more fully understand how these models predicted implementation of the Classroom Snacks and Rewards policy. From Rogers' (1995) Diffusion of Innovations theory, Communication Channels, Relative Advantage, Compatibility, and Observability were explored. A Shared Vision, the presence of a Program Champion, Administrative Support, and Self-Efficacy are the components of Durlak and DuPre's (2008) Framework for Effective Implementation that were explored. A number of these factors were noted as important by multiple interviewees in predicting implementation of the new policy.

Rogers' Diffusion of Innovations

Communication Channels. To begin, the new policy was effectively communicated to both school staff and parents. The District Health Coordinator did a presentation to all of the school Principals to talk about the new policy. During the meeting, Principals had the opportunity to ask questions about the policy and were provided with handbooks that included details about the new snack/reward policy that was being implemented. The handbook included

detailed lists of healthy snacks/rewards that could be used in the classroom. The District Health Coordinator also presented the new policy to the school nurses who worked with the Principals to implement the new policy. In addition, "all of the lower elementary school buildings' staff were given a copy of the Wellness Administration Rules policy and a School Food Guideline handout at the beginning of the school year…they were also provided with a copy of *Tips for Tools Alternatives for Using Food as a Reward*" (Final Report, Northland). The District Health Coordinator noted that "if the teacher keeps [the handbook] in her drawer, its very easy to find out …it was kind of in their face for awhile". Both the Principal and School Nurse in the district agreed that this was a crucial tool to support implementation. For example, the School Principal talked about how his building Coordinated School Health Team worked through the handbook and identified areas that may need trouble shooting. They "took a couple different handouts and combined them into one for classroom party ideas and shared that in writing with staff and also went over that in a staff meeting". In addition, "many building principals in-serviced their staff at the beginning of the school year regarding the district Wellness Policy" (Final Report, Northland). To communicate with parents, letters were sent home at various points throughout the year (beginning, before holiday parties), the information around the policy was included in the student handbook, and parents were "sent information via the school newsletter" (Final Report, Northland). Communicating through multiple channels and to various stakeholders appears to be an important way to ensure implementation of a district-wide health policy.

Relative Advantage. Another component of Rogers' Diffusion of Innovations (1995) model that was important for implementation was Relative Advantage. Each interviewee noted that there was "no specific snack policy before that" and the addition of the Classroom Snacks and Rewards policy was an improvement over the way classroom snacks and rewards were

handled in the past (Principal, Northland). Before the policy, the district did not have rules around the types of snacks that could be brought in for classroom parties or birthdays, and there were no regulations around rewards. The new policy provided clear guidelines and emphasized health promotion for students by eliminating unhealthy snacks and rewards. In an effort to promote the new policy and convey it's importance, Northland schools "put a lot of flyers up and posters up around the school about the importance of eating fresh fruits and vegetables and the importance of getting your milk and all of your health foods" (Nurse, Northland). In communications around the new policy, it was portrayed as better than the previous norms for classroom snacks and rewards to all stakeholders in the district. The District Health Coordinator explained its importance to the School Board, School Principals, and Nurses. The Principals and Nurses passed on the message to teachers, and school staff emphasized the health benefits of this new policy to parents and students, explaining why it was important to implement. Through all of these avenues, the policy around classroom snacks/rewards was shown to be beneficial for the health of students, making stakeholders more willing to implement the new policy.

Compatibility. Northland interviewees showed overwhelming support for the importance of Compatibility in implementing the new policies. The Coordinated School Health model, and Coordinated School Health Teams at the district and building level, were in place for a number of years before the new policy was adopted, so "people knew we were beginning to make changes before the policy…the momentum was there and we just kept building on it" (Main Grant Contact, Northland). Through each conversation, it was evident that there were numerous health initiatives going on in the district at the time the new policy was introduced, which helped to reinforce the importance of the new policy. Some of these health initiatives included "recess before lunch, a fruit and veggie bar in the lunch room, saying no to certain food items that

although the federal government said it was ok…we didn't want them in our schools" (Nurse, Northland), as well as "increasing physical activity" (Principal, Northland) and "education about the food pyramid" (Main Grant Contact, Northland). It is clear that the health promotion going on in various areas of the school helped facilitate the implementation of this new policy around Classroom Snacks and Rewards.

Durlak and DuPre's Framework for Effective Implementation

Shared Vision. Similar to Compatibility, a Shared Vision is thought to be important to implementing new policies (Durlak and DuPre, 2008). Across the Northland School District, there was a strong Shared Vision around the importance of health promotion, especially with regards to the new classroom snacks and rewards policy. Each building in the district had a CSHT that worked on health promotion and worked on the various health initiatives going on in the district. Northland's School Nurse talked about how each building CSHT worked through the *Healthy School Action Tool (HSAT)* "looking at where they are lacking or not so good in certain areas um, whether it's through physical education or nutrition or teaching or other health issues like drugs or smoking or whatever…to look at where we needed to make changes and I think that really helped also with making it a positive implementation into the schools". Each school district completed the HSAT prior to selecting the health policies for this grant as a way to prioritize areas of weakness in their district. Northland's main grant contact agreed in saying "the shared vision is a mission statement that we have for Coordinated School Health" because they were working on health promotion in a number of areas in the school. Working collaboratively toward these goals exemplifies a Shared Vision across the district to prioritize health promotion, through implementation of the new classroom snacks and rewards policy, for students.

Program Champion. Another extremely important predictor of successful implementation in Northland was the Program Champion who led the effort in the district. All three interviewees noted the District Health Coordinator as the key leader advocating for the implementation of the Classroom Snacks and Rewards policy. She "has always been just very pro health for the school district and trying to get things implemented and working through the nurses and through the principals and through the board of education to make sure that we're doing all we can to help our students be healthy" (Nurse, Northland). Her role included providing "all the information for this [Healthy Futures For Kids] grant" (Main Grant Contact, Northland), as well as "being available to answer questions…and for people that were concerned she was available to them" (Principal, Northland). She provided support to ensure implementation occurred and advocated for the new policy throughout the district. The District Health Coordinator also noted the importance of the Superintendent of the district who "was supportive [of the new policy] when we took it to the Board." Having a strong Program Champion who is visible and identified by a variety of stakeholders was an important factor contributing to implementation in the district.

Administrative Support. Administrative and Principal Support were noted by all interviewees as important contributors to the implementation of the new Classroom Snacks and Rewards policy. Because the policy was adopted district wide, it became an administrative mandate. As Northland's Nurse explained, "If the boss says it has to be done, it's done. If the Board said you know 'this is now policy and all schools will implement this and strictly adhere to this' it works, it's just, it's done". A Principal echoed that idea talking about the importance of "consistency" in implementing the new policy. He was unsure if it was "for fear of consequence that it could have been, you know, insubordinate if they didn't do it, or just simply

if they knew it was the best thing to do", but either way, the policy was successfully implemented district-wide. Board adoption of the policy also emphasized its importance. Interviewees talked about the initial hesitation and resistance from some of the Principals in the district. The District Health Coordinator noted that "of the six lower el's, three of them were on board with it right away…I'd say four were on board and the other two took a little bit of timing, uh to get them on board." The Nurse agreed, saying, "at the beginning, some of the Principals again did not quite understand the need for this…but little by little they all got on board". Because the policy was adopted by the school board and was a district-wide mandate, all principals eventually came on board. Those who were initially hesitant talked to other principals and were provided with a great deal of information about how to implement the policy and the importance of promoting children's health in school. Though there was initial resistance by some of the Principals, the School Principal explained that "once the administrative level supported it and you know we as principals supported it within our buildings, that's when teachers started doing it as well". All of these explanations point to the importance of support at both the Administrative and Principal levels to ensure implementation occurs.

Self-Efficacy. Self-Efficacy of Principals in the district also played an important part in implementation. Each interviewee gave examples of ways in which School Principals demonstrated their Self-Efficacy for implementing the new policy. As mentioned earlier, the District Health Coordinator talked about how some principals were on board with the new policy right away, and others took longer. She discussed the Self-Efficacy as "favorable, especially when those three really strong principals were on board from the get go and already had things sent out and their packets they sent home ready to go". These individuals were sufficiently prepared to adopt and implement the new policy. Likewise, Northland's School Nurse

mentioned the Principal in her school. She gave the example that "when parents come in with cupcakes…he's very good at being up there and just saying 'you know I understand etc., etc.' and soothing frustrations and asking them to please take the stuff home". This example provides support for Self-Efficacy for the new policy. The Principal in this building felt confident enforcing the new policy and was able to handle situations that arose around the new policy. Without Principals who felt they had the necessary knowledge and skills to implement the new policy, it would be unlikely that schools would have much success with implementation.

Role of Coordinated School Health Teams in Diffusion and Implementation

In addition to Rogers' (1995) and Durlak and DuPre's (2008) models, the Coordinated School Health Team played a central role in ensuring implementation of the new snack and reward policy. The District Health Coordinator explained how the CSHT functions in Northland:

> "Let me give you a little bit of structure. In our buildings, we have teams, we have what we call building health teams in all of our school buildings. And of that we have a district Coordinated School Health Council. So the building health teams report activities, special events, things that are going on. Maybe results of the Healthy School Action Tool or whatever they are individually doing in their school to the Council. So in the mix of this we developed an ad-hock District Wellness Team to really be looking at the nutrition wellness policy so it's kinda like the feedback of all of these groups talking. I chair the Council, I pretty much chaired the District Wellness Team, and I'm in contact with the buildings." (Main Grant Contact, Northland).

This structure, of one team per building, seems to be key to ensuring health is a priority throughout all buildings in the district. As noted earlier, one role these building teams played was to anticipate areas that would need trouble shooting for the new policy and to create handouts about the new policy to ease implementation and "get the word out" (Principal, Northland). The Principal, who was part of the CSHT played a critical role in ensuring teachers were adhering to the new policy in their classrooms. During the first two years of the policy, he knew some teachers were not following the policy. To address this, he sent "first a generic letter

to everybody…and from there identified particular individuals that [he] knew were not following the policy and making sure to have conversations with them" about following the new policy in their classrooms (Principal, Northland). Building level teams played a central role in spreading the new policy to the teachers throughout their individual buildings and ensuring teachers were implementing the policy correctly.

In addition to spreading the new policy throughout individual buildings, the CSHTs played an important role in encouraging implementation. The District Health Coordinator talked about various team members who advocated for the policy at the building level (i.e. nurses, nutrition director, principals) and Northland's school nurse mentioned that team members talk to other teachers about the new policy in their building and at teacher in-service days. An important role that the CSHT members played in the School Principal's building was providing ideas to other teachers, and member of the team "were the first people to step up and make sure that the parties were healthy in their own classrooms, so they were being models of what was expected" (Principal, Northland). From these descriptions, it appears the CSHT members played a critical role in acting as advocates and role models for implementing the new policy in their own classrooms.

Factors of the Models that Did Not Contribute to Implementation

Observability. Interestingly, when asked about the Observability of the policy, the interviewees did not talk much about it. It seems communication in the form of written handouts/emails and talking to other teachers was a more useful way to spread and implement the new policy. In fact, when asked about whether seeing the new policy may have helped with implementation, the Principal replied:

> "I mean there's really not anything you're gonna go and see. I mean it's not like going and watching someone teach a lesson. I mean if you just walk into a building and you

> don't see a kid eat a cupcake or you don't see a vending machine full of Doritos, it's not like 'Oh I see that's a health benefit now.'…I don't really think there's anything physical you could see in front of you that would show that 'Oh this is a good idea'" (Principal, Northland).

This suggests that talking about the importance of the policy and how to implement it successfully is more important than simply seeing a classroom party that may have healthier options available. Since the health benefits cannot be seen immediately, educating all involved stakeholders may be the key to successfully implementing such a policy.

Northland's success in implementing the new Classroom Snacks and Rewards policy appears to strongly support the various facets of both Rogers' (1995) and Durlak and DuPre's (2008) models and the importance of the Coordinated School Health Team.

Pinecrest School District

Pinecrest School District selected a Quality PE Curriculum as one of the policies to implement in their district as part of the HFFK grant. This curriculum (called Exemplary Physical Education Curriculum (EPEC)) was adopted and implemented district-wide at the elementary level, which included 8 schools. Both the school Principal and gym teacher noted some variation across the schools in the level of implementation of the policy. The Principal noted, "some do not implement it as fully as others…depending on the initiative of the teacher as well as the support that the teacher is getting." Likewise, the gym teacher that was interviewed said "there are 8 physical education teachers. I know some of the older ones were a little reluctant to try something different this late in their careers so they are still doing their own thing…I know they're taking bits and pieces of it, I don't know that they've adopted it totally, but we'll get there eventually." Some variation was to be expected with this policy because the EPEC curriculum only accounts for "60-70% of the school year, so you can fill in the extra spots with whatever else you want to do" (PE teacher, Pinecrest). Since variation is built in to the

policy, it may be easier to drift from the original curriculum and not fully adhere to the policy. Pinecrest's final report for the HFFK grant included a survey of all of the PE teachers district wide. 11 of the 12 teachers across the district said that they were "using a quality physical education curriculum" which provides further evidence of implementation of the quality PE curriculum adopted in the district. In Pinecrest, the Quality PE Curriculum was effectively spread throughout the district, but it appears that variation in the level of implementation did occur.

When asked what full implementation of the policy would look like, the PE teacher explained:

> "What you should see is a lot of activity. It's not waiting in line and games where kids are bored. A lot of fun activities and they are getting the health concepts being taught, nutritional values. Um, it's not just something like dodge ball, we don't do that in EPEC. It's all games where kids are participating and learning good sportsmanship is part of it and learning a lot of the fundamentals."

Pinecrest's Principal also talked about the reduction in the number of injuries since the curriculum was implemented and that students always look like they're having fun when she observes PE classes. Since the curriculum was district-wide, "what we should see over the years is consistency and then that consistency moves on with them to the middle school where kids from all the different schools that meet together in middle school should have all been taught the same thing at the different schools" (PE teacher, Pinecrest). Overall, the new curriculum emphasizes learning fundamental skills in a safe, consistent manner across all schools in the district.

Just as the Northland School District described many of the components of Rogers' (1995) and Durlak and DuPre's (2008) models when asked generally about diffusion and implementation, so too did Pinecrest. Different levels of factors affecting implementation were

noted, including Organizational Capacity, Innovation Characteristics, and Provider Characteristics. Innovation and Provider Characteristics are also part of Roger's (1995) model. Interviewees explained that adopting the new EPEC curriculum was part of a larger health effort going on in the district (Compatibility/Innovation Characteristics) and was met with support from Administrators, Principals, and Teachers throughout the district (Organizational Capacity). In addition, interviewees talked about how the new policy was clearly communicated through meetings and a clear written curriculum (Communication Channels/Organizational Capacity). Finally, the PE teacher talked about the necessity of selecting a district-wide curriculum since so many new teachers were hired in the past few years (Relative Advantage/Provider Characteristics). Having one curriculum would improve the overall PE program for the students and help teachers create lessons for their classes. Interviewees were also asked about the specific components of Rogers' and Durlak and DuPre's models, as discussed below.

Rogers' Diffusion of Innovations

Communication Channels. A unique approach to the communication of the new policy regarding PE curriculum in the Pinecrest School District was the fact that the PE teachers played an integral role in selecting the curriculum. Pinecrest's nurse recalled the School Improvement Coordinator talking about the importance of teacher buy-in, saying "you have to have buy-in by the PE teachers. You know you just can't tell them we want to implement this curriculum". Because the School Improvement Coordinator held this view, she had all the PE teachers "come in and discuss it and see if [they] were all on board with it" (PE teacher, Pinecrest) before selecting that curriculum as the district-wide standard. This helped the teachers to feel like "they really owned it, so it wasn't the Coordinated School Health Council telling them they had to do this" (Main Grant Contact B, Pinecrest). Durlak an DuPre's (2008) model suggests Shared

Decision-Making as another component of Organizational Capacity that is important to implementation. Pinecrest exemplified this characteristic in allowing the PE teachers to work with the School Improvement Coordinator to select the new PE curriculum they would be implementing. A sense of ownership over selecting the new curriculum was one way of communicating the new policy to the PE teachers in the various schools.

In addition to beginning the process with teacher buy-in, the PE teachers received training from the creators of the EPEC curriculum during teacher in-service days, another way that communication occurred. The Principal from Pinecrest that was interviewed noted the quality and clarity of the materials teachers received for the curriculum, explaining that "everything's in there they need, it's very organized, so the tools they have definitely work". Other interviewees agreed that the policy around the new curriculum was clearly communicated which eased implementation across the district, and in the final report for the HFFK grant, all 12 PE teachers that were interviewed in the district indicated "there was a written mission statement and sequential curriculum based on state and/or national standards for physical education".

Relative Advantage. All four interviewees talked about not having a policy around PE curriculum in place before the introduction of EPEC. The PE teacher recalled, "when I started teaching, say about 8 years ago in the district, it was pretty much just do whatever we feel like doing. So there really wasn't much of a curriculum or policy". Introducing a new curriculum for all of the teachers ensured consistency across the buildings, and lessons built on each other to develop students' skills. Another advantage of the new policy was that the HFFK grant helped to "support new supplies that otherwise our schools would not have been able to get" (Main Grant Contact A, Pinecrest). In tight financial times, money for new PE equipment was a major advantage of implementing the new EPEC curriculum. Overall, the introduction of a consistent

curriculum to span the district and the funds to purchase new supplies portrayed the new policy as better than the prior, non-existent policy around PE curriculum

Compatibility. Each interviewee talked about the new EPEC curriculum as compatible with the current norms, values, beliefs, and practices within the district at the time of implementation. The grant contacts for Pinecrest talked about the local wellness policy and the changes going on in the district around health. Changes around "what foods were available in school stores, what foods were served on the a la carte line in the cafeteria, encouraging teachers to have healthier foods at parties" were some of the health initiatives going on at that time (Main Grant Contact B, Pinecrest). Promoting students' health in multiple areas made health promotion the norm within the district so improving the PE curriculum fit nicely into this overarching focus. Also, the PE teacher talked about the current state benchmarks in relation to the new policy: "So this EPEC curriculum builds right on the state benchmarks and goes over all the loco-motor skills and all the health components are added in there so it was really good to go right along with what we're already supposed to be doing. It just kind of built right on top of that." Since the PE teachers already had state benchmarks they were following, the EPEC curriculum seemed to be a nice fit with what they were already doing, just enhancing lessons and making the curriculum consistent across the district.

Durlak and DuPre's Framework for Effective Implementation

Shared Vision. A shared vision across the district around health promotion and new the PE curriculum was present in Pinecrest. Each interviewee talked about how the shared vision across the district increased support for the implementation of the new policy. The Principal from Pinecrest talked about the new policy as "a necessity" since the district was working on promoting health in all areas of the students' lives. Since they were "looking at healthy aspects

in every facet of the children's life and you know, physical activity with this new curriculum was going to assist with that" (Principal, Pinecrest). Pinecrest's PE teacher talked about how the new curriculum supported the Shared Vision in the district because it "had a health component to many of the lessons…and it's a good way to talk about the importance of eating healthy and balanced nutritious lunches or you go home and have a nutritious snack and not eating junk food." Because health was being promoted in various areas throughout the district, it is evident that there were many supporters who shared the value of health promotion for students.

Program Champion. In the Pinecrest School District, interviewees mentioned a number of individuals who filled the roll of Program Champion. The grant contacts that were interviewed talked about the role they played in championing the effort, also the School Improvement Coordinator, one school board member played a central role, and the Coordinated School Health Facilitator, who recently retired.

The two individuals interviewed as the main grant contacts for the HFFK grant discussed their role in the effort; going to "the curriculum team and the board meetings to make the presentations about the program" and working closely with the School Improvement Coordinator (Main Grant Contact A, Pinecrest). Pinecrest's Principal talked about how the School Improvement Coordinator was the "soldier on the forefront, introducing it to different levels of the administration throughout the district, whether it be school board or central office or principals and then right down to working with the teachers." The School Improvement Coordinator was very supportive of the PE teachers and encouraged them to select the curriculum to implement. The PE teacher recalled "she told us from the beginning we need to do something in the district to change and if it's not the EPEC curriculum then we need to figure something else out to better the PE classes." This insistence on the PE teachers selecting the

curriculum to ensure buy-in and advocating for an improved curriculum made the School Improvement Coordinator a strong champion for the new policy in Pinecrest.

Another important player in the implementation of the new policy was "a very active School Board member…who serves on the Coordinated School Health Council" and attended trainings around health promotion (Principal, Pinecrest). With such a prominent position within the district, her support solidified the importance of health promotion and focusing on the various health efforts going on in the district. She attended a CSHT training with other leaders of the team and provided strong leadership within the team and the district.

Finally, the Coordinated School Health Facilitator in the district, who recently retired, championed all areas of school health. She was hired full time as the Coordinated School Health Facilitator around the time the HFFK grant was awarded and worked tirelessly to ensure implementation of all of the HFFK policies across the district. The main grant contacts talked about the importance of having an individual in such a role because working on these policies was "a lot of work and it helps to have a facilitator or coordinator" to oversee the effort. They took on this role when the Health Facilitator retired and "just did it in addition to [their] regular jobs and worked [their] butts off" (Main grant contact A, Pinecrest). Overall, having multiple Program Champions in place across the district was an essential ingredient in the successful implementation of the new Quality PE Curriculum policy.

Administrative Support. As discussed above, a School Board member played a central role in championing the new health policies across the district. Interviewees talked about the importance of that support in relation to the PE curriculum. Pinecrest's Principal said the Administrative support "sends the message that it's an expectation and not a choice" which she explained was a positive message to send because "many times in schools things come and go,

like programs, that when you have support from the top down, they're more apt to believe it's there to stay." The main grant contacts also talked about the fact that "it's hard to do anything without [Administrative support]". Support at this level led to support at the Principal level as well.

All of the interviewees talked about the idea that principals did not generally spend much time thinking about PE and whether a specific curriculum is being followed. The grant contacts noted:

> "I'd like to say a lot of the principals, you know, at the school level, PE is not exactly their priority, you know it's kind of like whatever the PE teacher wants to do is OK. They kind of leave the PE teachers alone, its not tested on the MEAP tests, so whatever the PE teacher wants to do is ok. But because we had the whole thing go through the school improvement process, I think that gave it validity" (Main Grant Contact B, Pinecrest).

The PE teacher also talked about how Principal support made implementation easier: "just makes everything easier when everyone is on the same page. Our classroom teachers have to be following their curriculum and their state guidelines, principals expect us to do the same thing." Pinecrest's principal discussed her role in providing support and noted "well being in the classroom myself I know that when your principal asks you what you need and if they give you the tools then you do your job. And I believe that. If you give teachers the tools they need, then they will do their job." This philosophy demonstrates the importance of principal support and her commitment to ensuring the new policy around PE curriculum was implemented. Finally, in Pinecrest's final report, PE teachers were asked about the strengths of their PE program, and many noted "I have support from my principal" and "Support from principal and staff" and "teaching staff and support from administration" (Final Report, Pinecrest). It is obvious that there was overwhelming support at both the Administrative and Principal levels to ensure implementation of the new EPEC curriculum occurred.

Self-Efficacy. All of the interviewees felt the PE teachers had self-efficacy for implementing the new policy. Pinecrest's Principal talked about the "in-servicing" teachers had to prepare for teaching the new curriculum and that the materials were "dummy proof…organized and sequential." Pinecrest's PE teacher echoed this notion explaining that "we had the training, and it's pretty easy curriculum to follow. It gives, breaks down which units you should be doing in what part of the year and gives you flexibility where you can still do the units you have always done. This curriculum is about 60 to 70 percent of the school year." Providing teachers with sufficient training and a clear set of lessons ensured that teachers felt confident implementing the new curriculum.

Role of Coordinated School Health Teams in Diffusion and Implementation

The CSHT in Pinecrest School District played a central role in diffusing and supporting the implementation of the new Quality PE Curriculum policy. The main grant coordinators emphasized its importance in saying "I don't think anything would have happened if we hadn't had our Coordinated School Health Council. I don't think any of the changes would have been made without it" (Main Grant Contact B, Pinecrest). In spreading the word about the new PE curriculum, the PE teacher talked about the role of the CSHT in organizing the meetings for the teacher in-service days and the CSHT helped to "get the whole thing rolling." He also noted that the "team is the reason why we have the EPEC curriculum. It's because they took the time and found the grant" (PE Teacher, Pinecrest). Without the CSHT, Pinecrest would not have received the funding for the HFFK grant and would not have received the EPEC curriculum.

To aid in implementation, the PE teacher noted the importance of "getting our administrator on board and then that trickling down from there…they were the instrumental ones in getting everyone on board and it just kind of went from them to our administrator to us to the

kids". Spreading support throughout the district ensured implementation occurred at the local building level. Again, the main grant contact discussed the importance of the team in implementation, explaining "if we did not have the leadership training and started the Coordinated School Health Council, I think the wellness policy would have been something that was written and put on a shelf. So I don't thing the implementation or any changes would have happened without [them]" (Main Grant Contact B, Pinecrest). Each of the interviewees also talked about how the team members advocated for the policy within the school buildings. The leadership within the district and the committed CSHT members played a central role in ensuring the new Quality PE Curriculum policy was spread and implemented across the district.

Factors of the Models that Did Not Contribute to Implementation

Observability. Interviewees did not endorse Observability as a factor that facilitated implementation of the new PE curriculum within the district. Teachers did not have the opportunity to go to other schools to see how the curriculum was implemented. Interestingly when asked about Observability, each interviewee mentioned teachers talking to each other through the CSHT or in-service days about ideas of how to implement the new curriculum, but no observations occurred. The PE teacher did mention that he occasionally will "teach with one of the teachers and...help out a couple time a week and he watches how I teach the EPEC curriculum", but other than that one example, observations of teaching the new EPEC curriculum did not occur, and therefore did not contribute to the implementation of the policy.

Pinecrest interviewees provided strong support for the fit of Rogers' (1995) and Durlak and DuPre's (2008) models in facilitating implementation of the new policy across the district. Each interviewee also stressed the importance of the CSHT in ensuring diffusion and implementation occurred.

Middleton School District

Middleton School District selected the Classroom Snacks and Rewards policy as one if its two policies to implement as part of the HFFK grant. All three interviewees felt that the policy was not effectively spread or implemented throughout the district. When initially asked if the policy was still in place, the main grant contact said, "I would say probably not…the reason is because there's no one to enforce it and also there's really no education going on about it either." Similarly, the Principal that was interviewed explained, "the policy is in place, I'm not sure the implementation is where we want it to be." In the same way, the Teacher from Middleton noted that she had her own policy, and "lots of teachers just have their own policy." Though this teacher did have her own policy, it was more around daily snacks that students brought in to share with the class rather than around holiday or birthday celebrations. A consistent message came through each interview that the policy around classroom snacks and rewards was not in place across the district, and Middleton's final report for the HFFK grant acknowledged that "there does not seem to be any changes in areas such as birthday treats or special occasion parties," the target settings for this policy.

Another important message that was clear across interviewees was that there was very little awareness of what was going on in buildings across the district that the interviewees did not work within. At the very beginning of the interview with Middleton's Principal, she was asked 'How many schools are implementing the new policy?' to which she replied, "Oh gosh, I mean, I only know what happens here. I'm so sorry…I can only speak to what's happening in our building." Middleton's teacher provided a similar answer in saying "I guess I don't know about other schools, um I'm just speaking, you know for [Woodland] where I'm at." The lack of communication about the new policy may speak to the reason why the interviewees did not know

what was going on in other buildings in the district. It is possible communication across the district is inconsistent in general, which would have had implications for the communication of the new health policy.

Diffusion of the policy did not occur within Middleton School District, which is one explanation for the lack of implementation across the district. The main grant contact felt they "could of done a better job with that, you know, getting information out." Likewise, the Principal from Middleton commented that "the information was passed on, now again, what happens with it from there, you know, that lies at the building level." Barriers to diffusion were discussed and both the main grant contact and Principal had interesting insights to offer. The main grant contact explained, "something like this just gets buried amongst so many other things that go on in the school district." Middleton's Principal echoed this idea noting,

> "I think that we're just overwhelmed with so many other things to do, to be quite honest, and this, in some cases may have taken the back burner to improved test scores and student achievement and safety in the school, and all those things that also hit the front page of the newspaper."

Without prioritizing the new policy around classroom snacks and rewards, the policy could not be effectively spread and then implemented.

Though diffusion and implementation of the new policy did not occur within Middleton School District, various aspects of Rogers' (1995) and Durlak and DuPre's (2008) models were explored with interviewees to understand which components were in place around promotion of the new policy and which were not. Exploring these model components in a district that did not effectively implement the policy provides further understanding of which components play a critical role in facilitating implementation.

Rogers' Diffusion of Innovations

Communication Channels. The new policy around classroom snacks and rewards was not effectively communicated to the various schools across the district. Both the main grant contact and the Principal recalled a presentation at a Principal's meeting at the beginning of the year when the grant began. This meeting included principals in the district, who were then to take the message about the new policy back to their staff. The main grant contact explained that it was "dependent on the Principal getting back to the staff and talking to them" about the new policy, which did not seem to occur because Middleton's teacher did not feel "the district has done a good job of saying here's what the policy is regarding snacks or food as a reward and even just making teachers aware of it." Clear, direct communication to the stakeholders responsible for implementing the new policy did not occur in Middleton, and there was no one was held accountable for following the policy, which may explain why the new policy was not adopted or implemented across the district.

In addition to a meeting with Principals, parents were informed of the new policy through a pamphlet that explained the overall wellness policy and included a list of healthy alternatives for snacks. Middleton's final report declares, "We were successful in the creation of an informative and educational brochure…this brochure was central to our informational meetings and community outreach as we began the task of educating and informing our school and community members of the healthy changes within" the district. The wellness policy did say snacks should comply with the Institute of Medicine standards, but this policy was not enforced at the school level. Parents continued to send in unhealthy snacks for holiday and birthday celebrations. Increased communication and enforcement at the building level of the new policy around snacks and rewards may have increased success of the new policy.

Relative Advantage. Prior to the Healthy Futures For Kids grant, there was no policy in place around the types of snacks allowed for classroom parties or for class rewards, teachers "just kind of did whatever they did" without district-wide rules or regulations (Principal, Middleton). When the new policy was selected and then communicated to parents through the HFFK pamphlet (discussed above), it was supported by the IOM standards, which provided "evidence or research to back that these are better policies or guidelines" (Main Grant Contact, Middleton). Though presenting the new policy as developed based on a set of standards would seem to be an effective way to ensure adherence to the new policy, schools did not enforce the policy and still allowed unhealthy snacks into the schools. So, despite portraying the new policy as beneficial, the way in which it was communicated and the lack of enforcement prevented effective implementation of the Classroom Snacks and Rewards policy.

Compatibility. Across Middleton School District, when asked about Compatibility, interviewees talked more generally about the awareness of childhood obesity as a prevalent issue rather than the policy as compatible with the current norms within the school. The Principal said "we didn't really worry about health issues like we do nowadays" and the main grant contact echoed this sentiment in saying "you cant be living in this world today without knowing that we have a problem with childhood obesity." The main grant contact went on to say "a better job could have been done connecting the problem to the solution" and explaining to all stakeholders why the new policy was important. Middleton's final report made note that "we found that our school community was under-educated regarding the national crisis of childhood obesity and often seemed to lack interest in this topic." This lack of awareness and interest in the topic of health promotion would make it very difficult to implement new policies around health without support for the effort. Since talking about obesity more generally, rather than the compatibility

of the policy within the district, was unique to Middleton, it seems that the policy may not have been compatible with the current norms within the district and lacked the support of other health initiatives to ensure implementation occurred.

Observability. Observability did not occur in the Middleton School District because "there was no strong model school that really took it on" (Main Grant Contact, Middleton). Since the policy was not being followed, there was no way to observe it within a classroom and model one's action after what they saw. The Teacher from Middleton did talk about the Fit Kids Initiative that was going on in the district at the time, which provided funding for healthy activities in the classroom. She said that some teachers talked about healthy snacks that they were including in their classrooms as part of that grant and felt that other teachers "who may have been a little hesitant to do that on their own, you know, hear our stories and think 'oh yeah, I think I could do that'" (Teacher, Middleton). Since the Teacher felt talking about ideas in the teacher's lounge was helpful for another grant, talking about ideas for healthy snacks may have encouraged implementation if the policy had been adopted by at least a few teachers within the district. When asked if being able to see the new policy in action would have been beneficial, the main grant contact concluded that "if you did put more eggs in one of those baskets to develop a model school and start small then grow that concept" implementation may have been more successful.

Durlak and DuPre's Framework for Effective Implementation

Shared Vision. All interviewees in Middleton talked about a shared vision around the importance of health promotion across either their building or the district as a whole. Middleton's teacher said "even if it's just five teachers in the building that are talking about it and thinking about it, that certainly spreads from those five out, and then you find more and

more teachers are kind of getting on board." Though there was a shared vision for health in her building, she felt "it's more from the Fit Kids Initiative than anything else" (Teacher, Middleton). The main grant contact's views around the shared vision in the district provide support for why the Classroom Snacks and Rewards policy was not implemented. She explained, "if there's no one to drive it and keep pushing it through, then it's just, it's not going to happen." So despite a shared vision for the importance of promoting students' health, there was not a shared vision around the new classroom snacks and rewards policy and the lack of a strong leader hindered implementation from occurring.

Program Champion. Middleton's interviewees did not identify any strong Program Champions by name or any strong examples of individuals who played a critical role in advocating for the new policy. The main grant contact said there was "sometimes" a strong leader but there was no consistency across the district in who was leading the effort or the extent to which they were pushing for the policy. She said their role included "developing the brochure and meeting with the principals" but did not talk about an ongoing effort by any one individual or group (Main Grant Contact, Middleton). The Principal in the district said the nurses "would probably be right at the top of that list" but did not provide evidence for the role they played other than having "all the facts and figures and data that show very clearly some of the issues that our kids have in terms of their wellness and their health", suggesting they did not play a central role in encouraging implementation. Middleton's teacher mentioned a health team in her building that works to promote the Fit Kids Initiative, but "within the district, [she has] not seen that" for the promotion of the HFFK policies. Middleton's final report notes this lack of leadership also: "We would strongly suggest that identifying program champions within the community and the district be an early objective in Health and Wellness initiatives in the future.

The lack of program champions and invested partners was a detriment to our success." This lack of a strong leader had a major impact on the failure in implementation of the classroom snacks and rewards policy.

Administrative Support. All of Middleton's interviewees noted the presence of Administrative and Principal support for the new policy, yet this did not predict implementation across the district. Though Administrative support was noted, there was not an overwhelming feeling of support and advocacy for the new policy. When asked about principal support, the main grant contact replied, "I don't think anyone was being opposed to it", which does not convey a message of strong support for the new policy to promote students' health. Similarly, the Principal said "it was well received when the nurses came to present it" but did not talk about the role the principals played in ensuring the policy was followed. The final report admits that "stronger Administrative championing and support may have been helpful as we endeavored to create substantial change within the district." Simply stating one's support of the new policy without demonstrating support does not ensure adherence to the district-wide policy.

Self-Efficacy. A mixed message about Self-Efficacy came through the interviews with Middleton's staff. The main grant contact did not feel the Principals had the knowledge and skills necessary to ensure implementation occurred. She explained, "I think they'd feel like they need some support to do that because, you know, there would be resistance among staff and parents to do something like that." Without the support and knowledge for how to deal with resistance to the new policy, Principals may be unsuccessful in trying to ensure implementation occurred within their buildings. The Principal from Middleton felt she had the knowledge and skills to implement the new policy, but when asked about the other principals, she said "you're asking me about other places and I just don't know…I can only speak for myself." Not knowing

about the other Principals' efforts in implementing the new policy suggests there was little discussion of it and little implementation across the district. Likewise, Middleton's teacher talked about Principal self-efficacy by saying "it seems like we have the resources to pass the information along, it's just a matter of making that a priority school-wide so that parents really understand that this is something that we feel strongly about." Her adamancy around the importance of making health a priority suggests many of the factors from Rogers' and Durlak and DuPre's models can be present, but unless the policy is prioritized, implementation is unlikely to occur.

Role of Coordinated School Health Teams in Diffusion and Implementation

In the Middleton School District the district Coordinated School Health Team is no longer active. When the HFFK grant was awarded, the team was "fairly active" and worked to develop the wellness policy brochure and the grant coordinator at the time spoke to the Principals at the Principal meeting (Main Grant Contact, Middleton). The main grant contact described the role that team played in implementation in saying "well obviously I don't think they played a big role because it didn't really happen." Her poignant observation suggests the importance this team could have played in advocating for the new policy and ensuring implementation occurred, but their lack of action led to a missed opportunity for the team to support the HFFK grant.

Both the Principal and the Teacher in Middleton talked about their building CSHT as part of the Fit Kids Initiative going on in their district. This team worked on the *Healthy School Action Tool* to identify areas in need of improvement around school health. These team members "helped to spread some ideas amongst their colleagues about how they could implement some pieces of the wellness policy" (Principal, Middleton), and acted as "resources

for other teachers to go to if they have questions" (Teacher, Middleton). The CSHT at the building level in Middleton played a central role in working on the Fit Kids Initiative in the district, but did not play a role in spreading or supporting implementation of the classroom snacks and rewards policy as part of the HFFK grant.

Overall, Middleton did not have success implementing the new classroom snacks and rewards policy in their district. Discussing the various components of Rogers (1995) and Durlak and DuPre's (2008) models allowed for a better understanding of how these components affected implementation in this district as well as in those that were more successful.

Discussion

This study considered three school districts' efforts to implement new health policies across the district as well as the role of the Coordinated School Health Team in this process. Rogers' (1995) Diffusion of Innovations and Durlak and DuPre's (2008) Framework for Effective Implementation provide models for the necessary components to ensure diffusion and implementation occur. Past research has supported components of these models in a variety of settings (Allensworth, et al., 1997; Bussey, Dormody, & VanLeeuwen, 2000; Fetro, 1998; Lieber, et al., 2000; McLaughlin, 1998; Pankratz, Hallfors, & Cho, 2002; Spillane, 2000; Valois and Hoyle, 2000; Weiler, Pigg, & McDermott, 2003; Wilson, Pruitt, & Goodson, 2008). This study adds to the literature by considering the diffusion and implementation of health policies within school districts to understand the factors facilitating effective implementation. This study also looked at the role of the Coordinated School Health Team in spreading health policies across school districts, an area lacking in previous research.

Coordinated School Health Teams

The first and last research questions addressed the role of the Coordinated School Health Team in supporting diffusion and implementation of the new policies. This study provided insight into the role of the CSHT in spreading health policies throughout a school district. Though CSHTs have been in existence for decades, little previous research exists around their role in policy diffusion. Previous research has addressed the responsibilities of CSHTs in promoting health (American Cancer Society, 1999; Fetro, 1998; Marx, 1998), but has not dealt with policy diffusion specifically. This study found that the Program Champion in the district, who sits on this team, plays an important role communicating the new policy to others in the district. Members act as resources to non-members, and act as role models in supporting the new

policies. This team works tirelessly to promote health efforts in the school and actively works to support and engage stakeholders across the district. In Middleton School District, where the CSHT was no longer active, implementation of the new policy did not occur, providing further evidence for this team's importance. This study expands on the previous research around CSHTs in supporting the centrality of the team in diffusing new health policies within school districts.

Rogers' Diffusion of Innovations

Of the factors from Rogers' (1995) model explored in this study, Compatibility and Communication Channels were most strongly supported. Rogers' (1995) Diffusion of Innovations theory is focused on individuals adopting new innovations, but in this study, all three districts had already adopted the new policies. The fact that all three districts were already 'adoptors' of the new policies, may explain why Relative Advantage was not a strong predictor of whether or not a district implemented the new policy. Similarly, the lack of research in the area of health policy diffusion and implementation may have provided fewer opportunities for presenting the policy as advantageous over old or non-existent policies because there was not research to support the effectiveness of the new policies.

Both Rogers (1995) and Durlak and DuPre (2008) stress the importance of an innovation that is compatible with the "organization's mission, priorities, and existing practices" (Durlak and DuPre, 2008, p. 338). Previous research in schools found similar results, stressing the importance of compatibility in adopting a drug prevention policy (Pankratz, et al., 2002). When a policy is not compatible with the current context, as was the case in Middleton, successful implementation is unlikely to occur. This study provides further support for the importance of Compatibility, but in the context of health policy implementation within schools. In the districts

where health promotion was occurring in multiple areas and had become the norm within the school, new policies were successfully implemented.

Rogers' (1995) model includes Communication Channels as a key element in diffusing an innovation within a system, which has been supported in past studies around childhood obesity, school interventions, and health policies (Carlyon, Carlyon, & McCarthy, 1998; Fetro, 1998; Marx, 1998). The CSHT in each district used both mass media and interpersonal channels of communication to spread the new policy and to ensure implementation occurred. Presentations, written materials, and emails were common modes of communication. Though communication occurred in each district, it was only effective in two. Direct communication to those responsible for implementation seemed to be a prerequisite for implementation. Teachers who would be implementing the new policies needed the opportunity to ask clarifying questions and have access to resources to support their efforts. So although communication through both mass media and interpersonal channels may occur, it is crucial to target the appropriate stakeholders and to have ongoing communication to ensure implementation occurs.

Durlak and DuPre's Framework for Effective Implementation

A number of components of Durlak and DuPre's (208) model, a Shared Vision, Program Champion, Administrative Support, and Self-Efficacy, were explored in this study. Of these components, the presence of a Program Champion, Administrative Support, and Self-Efficacy provided the most evidence for their importance in facilitating policy implementation. Valois and Hoyle (2000) provided support for a Program Champion and Administrative Support in their evaluation of a Coordinated School Health Program that was implemented in three middle schools in South Carolina, and Bruce and Ross (2008) explained the need for Self-Efficacy in implementing new math teaching practices. The current study provided additional support for

the centrality of a strong Program Champion, Administrative Support, and Self-Efficacy in promoting health within school districts. Districts that had these three components present were much more successful at implementing new health policies than the district that did not have these components in place. Without a strong leader championing the effort and strong Administrative support, invested in the success of the new policy, successful implementation is unlikely. Similarly, without sufficient training for implementing the new policy, principals and teachers are not well equipped to make the proposed changes. Schools hoping to create similar change through policy implementation should ensure there is a strong Program Champion to lead the effort, Administrative Support for change, and ensure teachers and principals feel capable of making such a change.

Components of Rogers' and Durlak and DuPre's Models Identified as Important to Implementation, but not Initially Included in Study

Readiness for the new health policy became an apparent precursor to implementation within the successful school districts. Armenakis talked about readiness as "reflected in organizational members' beliefs, attitudes, and intentions regarding the extent to which changes are needed and the organization's capacity to successfully make those changes" (1993, p. 681). He went on to say, "readiness for change may act to preempt the likelihood of resistance to change, increasing the potential for change efforts to be more effective" (Armenakis, 1993, p. 682). Durlak and DuPre (2008) discussed readiness in their model through their Provider Characteristics. These include 'Perceived Need for Innovation', 'Perceived Benefit of Innovation', 'Self-Efficacy', and 'Skill Proficiency' (Durlak and DuPre, 2008). Readiness for change can lead to prioritization, which will be discussed below as a key component to successful implementation. School districts must believe that the status quo around the area to

be addressed (i.e. classroom snacks/rewards, PE curriculum) needs to change, that the proposed policy will help achieve that change, and that they have the capacity to make that change.

In both Northland and Pinecrest, stakeholders saw a need to improve the health of their students, and targeted specific areas that they believed could achieve this. In Northland, classroom snacks/rewards became the focus as a way to promote healthy eating habits and move away from unhealthy treats as a norm for celebrations. In Pinecrest, the need for a new PE curriculum was apparent, and stakeholders worked to find the best solution, in the form of the new EPEC curriculum. These districts were clearly ready for a change, and felt the proposed policies could achieve that change. Self-efficacy was explored in this study, and in both of these districts, the Principals and Teachers felt they had the knowledge and skills necessary to implement the new policy. Though these districts did appear to be ready for the proposed change, the policy faced resistance by some teachers and parents. Both districts were able to overcome this resistance through constant education and enforcement of the new policies. Had more work been done up front to develop readiness for the new policies, resistance may have been reduced or eliminated.

In contrast, Middleton's district was not ready for the new policy, as evidenced by their lack of prioritization of the new policy around classroom snacks and rewards. They did not collectively feel a strong need to change the current practices around snacks/rewards, had other pressing issues to attend to in the district, and did not have the knowledge or skills to adequately implement the policy. This lack of self-efficacy ties in to the lack of communication around the policy as well. If those responsible for implementing the new policy are not provided with sufficient information, how can they be expected to have the necessary skills and knowledge to

effectively implement the policy? In sum, readiness for the new policy in the form of Durlak and DuPre's Provider Characteristics was a critical precursor to success.

Another important factor of Durlak and DuPre's (2008) framework that facilitated implementation that was not originally explored in this study was Training and Technical Assistance. Constant training and education around the new policy may be essential for successful implementation. The amount of training necessary may vary depending on the complexity of the new policy as well as the degree to which it alters an individual's role within the district. School districts are complex and dynamic settings, with new parents and teachers moving through the system (Greenberg, 2004; Oxley, 2000). Each year parents must be informed about the new classroom snacks/rewards policy as new families enter the district. Throughout the year teachers and parents are reminded of the policy for students' birthday and holiday celebrations. This constant education may help reinforce implementation as teachers and parents are continually reminded of the new policy that is in place. Northland's final report indicated a need for continuous education in noting "the need to provide ongoing information and updates throughout the school year would have been helpful in keeping the new policy changes on the district radar." Based on interviews, it is apparent that Northland followed their own suggestion and continuously reinforced the new policy around snacks and rewards. With regards to a new PE curriculum, as new teachers enter the district, training for these individuals must occur. Interviewees in Pinecrest talked about teacher in-service days in which they received training in the new curriculum to ensure they had the necessary skills to implement the new curriculum. Durlak and DuPre (2008) include Training and Technical Assistance as important components in their framework, and though not initially explored, this study provides support for those components as necessary for successful implementation.

Model Components Unsupported in Current Study

Observability was an innovation characteristic Rogers (1995) suggested as important for diffusing an innovation throughout a system. Previous research has supported this claim as well (Chew, Grant, & Tote, 2004; Scott, Plotnikoff, Karunamuni, Bize, & Rodgers, 2008). This study explored whether observability of the new health policies facilitated implementation, but did not find support for this component of the model. Though observability did not affect successful or unsuccessful implementation, a number of ideas around observability surfaced. To begin, it is possible that different types of health policies produce different opportunities for observability. For example, the classroom snacks and rewards policy was visible to any individual, as they could clearly see whether or not healthy snacks are present within the classroom or if healthy or non-food rewards are provided to students. In contrast, to an untrained individual, it may be more difficult to observe a PE curriculum policy. The curriculum provided clear guidelines for PE teachers, but also allows for some variation (the curriculum accounts for only 60-70% of the school year). Observers may have had a harder time judging whether the PE policy is truly in place. Being able to easily see a policy, as is the case with classroom snacks/rewards, as compared to a more challenging policy to see may affect implementation. More easily visible policies may be easier to mimic and learn from than those that require some training and familiarity with a specific curriculum. Also, with a more difficult to observe policy, and one that has built in variation, there is a higher potential for adaptation and non-compliance that could go unnoticed. With a policy that is more black and white, such as the snacks/rewards policy, there is less room for non-compliance of the policy to go unnoticed. So though observability may be an important innovation characteristic for easily observable innovations, it may be less important in facilitating diffusion and implementation if the innovation is not easy to accurately observe.

Additional Factors to Consider

Prioritization was not discussed in much depth in Durlak and DuPre's model, but this study provides support for prioritizing an innovation in order for it to be implemented. Durlak and DuPre talk about innovations being compatible with system priorities, but frame it as part of Compatibility rather than making Prioritization a separate component central to implementation. In the two districts that had success implementing their new policies, it was clear that health and working on the new policies that were part of the HFFK grant were priorities in the district. Resources were put into supporting Health Coordinators, creating handouts about the new policy, purchasing a new curriculum, and training teachers. The time and energy devoted to ensuring implementation occurred provides evidence of the prioritization of the new policies. In Middleton, inconsistent leadership and little effort to promote the new policy indicate a lack of prioritization. Overall, the suggested policy must be prioritized in order for it to have a chance at successful implementation.

Through discussions with each interviewee, it became apparent that Tracking the implementation of the new policy and Accountability were important factors that contributed to implementation, another idea not addressed by Rogers or Durlak and DuPre. In Northland, which had the most success implementing their new policy, teachers were held accountable for ensuring their classrooms had healthy snacks/rewards. The policy was clearly enforced across the schools in the district. The Principal interviewed talked about how he addressed issues that arose around non-compliance with the new policy. Parents were also held accountable since snacks for parties often came through the front office, and could be sent home with the parent if they did not adhere to the new policy standards. This policy was very visible, which facilitated Tracking and Accountability. In Pinecrest, the PE teachers were trained in the new curriculum

and expected to implement it. There was less accountability in this district because the policy was less visible. Principals would have had to go to the gymnasium to observe class, and even then, may not have been aware of what the new curriculum should look like. The lesser visibility of the PE policy may have contributed to lesser implementation because it was more difficult to keep teachers accountable and enforce the new policy. In Middleton, no Tracking or Accountability occurred around the classroom snacks/rewards policy because it was not successfully implemented. The final report for the HFFK project notes, "We would suggest that once a new policy has been selected and implemented, a clear enforcement plan must accompany the policy." This reflection on the implementation process suggests that in addition to communication about the new policy, enforcement is necessary to track implementation and keep stakeholders accountable for the new policy. Overall, this study provides support for considering Tracking and Accountability when implementing a new health policy.

Study Limitations

A few limitations did arise in this study. To begin, the sample size in this study was very small, with only three school districts and 10 interviewees. Across the districts, there was one individual in each position (with the exception of two grant contacts in Pinecrest). Though there was a small N, there was a great deal of agreement across interviewees in each district. A larger N may have provided additional insights and stronger support for already evident conditions within the district. Also, the data collection was retrospective, asking about a policy that was adopted a few years ago, so may have been difficult to recall for the interviewees.

Next, the final report data from each school is from the 2008-2009 school year. Current data in this form is unavailable, so what interviewees recalled about the current state of the policy implementation process could not be cross-walked with up-to-date data. Though much of

the data may be outdated, a great deal of it was consistent with what interviewees talked about (i.e. implementation processes).

Next, as noted earlier, all of the school districts were already 'adoptors' of the new policies, which may have had an impact on the findings. Since Rogers' (1995) Diffusion of Innovations theory is about individuals/groups in the process of adopting the innovation (rather than those who had already adopted), it is logical that many of his model components would be supported. This study found support for his model, but had the districts not already adopted the innovation, findings may have been different.

This study used an established conceptual scheme to explore how policies were diffused and implemented within a school district rather than looking at this phenomenon in a more open-ended manner. This approach was beneficial because it took two recognized theoretical models to understand the factors necessary for successful implementation, but may have limited further understanding of other factors that were important to implementation. Interviewees were asked open-ended questions about what facilitated implementation of the new policies, so this allowed for exploration of important factors outside the noted models.

Another limitation is that this study did not include data from parents of students in the district. Without information from families, it is hard to understand how these new policies affected them. For example, interviewees in the districts that adopted the classroom snacks/rewards policy talked about parents' reactions to the new policy, but no data was collected first hand from these parents. It is possible that they may have had different ideas about the new policy than those conveyed by school staff.

Finally, this study explored three school districts of similar demographic profile, so findings from the investigation may not generalize to other school districts with very different

demographic characteristics. This concern may be lessened by the fact that despite similarities in context (i.e. neighborhood characteristics, MEAP scores, drop out rates), differences in implementation did occur, suggesting the centrality of Rogers' and Durlak and DuPre's models in facilitating effective implementation rather than the school context.

Implications for Future Research

This study provided substantial support for Rogers' and Durlak and DuPre's models in facilitating implementation, but provides suggestions for future research in this area. To begin, this study could not determine the relative importance of the various model components. Though speculations were put forth, no definitive conclusions around the importance of each component could be drawn. A quantitative approach to exploring the various components of both Rogers' and Durlak and DuPre's models may provide insight into the importance of each factor compared to the others. Surveys with school staff that address how the various components affected implementation may provide more conclusive evidence for the importance of the suggested components. In addition to trying to understand the relative importance of each of the model components, it is also important to consider the long-term outcomes associated with implementing these new policies. For example, measuring implementation over time to see if the new policies have become institutionalized within the districts and established as norms (i.e. students naturally bring in healthy snacks for celebrations and PE teachers follow the new curriculum without hesitation). Another way to measure outcomes around the new policies to see how effective they are would be to measure student caloric intake or BMI and changes in food practices in the home. These types of outcomes may provide evidence for the health benefits of the new policies.

Another area worth further exploration is to consider the degree of observability of an innovation and how that may affect diffusion and implementation. As suggested earlier, those policies that are more easily observed may be more readily implemented as well. Finally, it is important to explore Prioritization, Tracking and Accountability as necessary elements to add to Durlak and DuPre's model. Their model provides a great deal of information on the importance of a number of factors that facilitate implementation, but they do not discuss the importance of prioritizing the new policy, tracking implementation, and keeping stakeholders accountable over time. These seem to be important elements missing from this model.

Conclusion

In conclusion, this study provides support for the central role the Coordinated School Health Team plays in diffusing new health policies throughout a school district, a contribution to the CSHT literature. These teams play a critical role in communicating the new health policy and providing support to teachers and principals in the district. Rogers' and Durlak and DuPre's models provide strong guidance for these teams in successfully diffusing new policies and supporting implementation. If the model components explored in this study are in place, it is possible districts will have more success implementing new policies.

This study also adds to the literature by exploring components of Rogers' (1995) and Durlak and DuPre's (2008) models to understand the factors that facilitate implementation of health policies throughout a school district. Communication Channels, Compatibility, a Program Champion, Administrative Support, and Self-Efficacy emerged as important factors to ensure successful implementation across school districts. Based on the interviews in this study, it appears these factors interact in a way to promote implementation. Clearly communicating the new policy requirements and ensuring those involved with implementation feel confident

implementing the new policy, in a context that is compatible with health promotion and has support from a strong leader and the Administration, were clearly important factors related to successful implementation. In addition to the initial aspects of these models that were considered, Readiness and Training and Technical Assistance (components of Durlak and DuPre's model) surfaced as important precursors to implementation as well. Prioritization and Tracking and Accountability are factors that may be worth further study and consideration as additional factors to add to Durlak and DuPre's (2008) Framework for Effective Implementation. This study may provide guidance for districts working to promote health within their schools through the use of health policies. Including these necessary components may facilitate implementation.

APPENDICES

Appendix A

Table 1: Eight Components of Coordinated School Health Programs

Component	**Definition**
Health Education	K-12 curriculum that addresses physical, mental, emotional and social dimensions of health, while teaching children how to improve their health, reduce health related risk behaviors, and prevent disease
Physical Education	K-12 curriculum that uses a variety of physical activities to promote students' physical, mental, emotional, and social development while teaching activities that all students can enjoy and continue throughout life
Health Services	Intended to "foster appropriate use of primary health care services, prevent and control communicable disease and other health problems, provide emergency care for illness or injury, promote and provide optimum sanitary conditions for a safe school facility and school environment, and provide educational and counseling opportunities for promoting and maintaining individual, family, and community health." (NCCDPHP, 2008)
Nutrition Services	Includes the meals that are served in school cafeterias which should meet the U.S. Dietary Guidelines for Americans; offers a 'learning laboratory' for classroom nutrition and health education, giving students the opportunity to put their knowledge into practice
Counseling, Psychological, and Social Services	Services to improve students' mental, emotional, and social health, and include individual and group assessments, interventions, and referrals
Healthy School Environment	Encompasses the physical and aesthetic surroundings, the psychosocial climate, and the culture of the school
Health Promotion for Staff	Provides opportunities to encourage staff to pursue a healthy lifestyle
Family/Community Involvement	Family and community involvement in advisory committees, coalitions, and services to enhance the health of students

Note. Source: Allensworth & Kolbe, 1987; NCCDPHP, 2008

Appendix B

Table 2: Factors Facilitating Implementation in each District

	Rogers' (1995) Diffusion of Innovations				Durlak and DuPre's (2008) Framework for Effective Implementation			
	Communication	Relative Advantage	Compatibility	Observability	Shared Vision	Program Champion	Administrative/ Principal Support	Self-Efficacy
Northland	X	X	X	X	X	X	X	X
Pinecrest	X	X	X	0	X	X	X	X
Middleton	0	X	0	0	X	X	X	X

Note: X=present, 0=absent

Appendix C

Table 3: Community Context: Neighborhood Factors That Promote and Deter a Healthy Lifestyle Present in Each District

	Neighborhood Factors That Promote a Healthy Lifestyle		Neighborhood Factors That Deter a Healthy Lifestyle			
	Availability of Health Promoting Services/Resources	Community Norms for Sharing Resources and Providing Support	Difficulty Accessing Healthy Resources	Social Norms	Lack of Resources	Healthy Alternatives are Unavailable
Northland	X	X	0	0	X	X
Pinecrest	X	0	X	X	X	0
Middleton	X	X	X	X	X	X

Note: X=present, 0=absent

Appendix D

Table 4: Community Context: Percentage of Students who Met or Exceeded Standards on MEAP Tests and High School Drop-Out Rates in Each District

	3rd Grade		4th Grade		5th Grade		
	Math	Reading	Math	Reading	Math	Reading	Drop-Out Rate
Northland	91.3%	81.5%	86.6%	70.5%	66.2%	76.3%	17.11%
Pinecrest	90.7%	82.0%	86.6%	71.2%	68.7%	77.6%	14.60%
Middleton	92.8%	88.5%	86.5%	77.3%	68.0%	77.1%	18.92%

Appendix E: Interview Recruitment Letter

Dear XXXX,

The Healthy Kids, Healthy Michigan grant supported efforts in three school districts to improve the health of their students by adopting new health policies. These policies were intended to help children develop healthy habits early on and improve their health throughout life. Because your school district participated in the Healthy Kids, Healthy Michigan grant and chose to adopt new district-wide health policies, I would like to learn more about your experiences with implementing these new policies. I will be conducting interviews with current and/or former Coordinated School Health Team members to understand this process. This project is not associated with the Healthy Kids, Healthy Michigan grant, but rather is being conducted as a Master's Thesis study.

In the next few days, you will be contacted by a member of the research team at Michigan State University and will be asked to participate in an interview. The interview will last about 60 minutes and will cover such topics as:

- What factors facilitate and impede health policy diffusion and implementation
- The role of the Coordinated School Health Team in health policy diffusion and implementation

I look forward to the opportunity to talk with you. If you have any questions or concerns, please contact Jenny Mortensen toll-free at 1-866-343-5279 or at morten19@msu.edu.

Sincerely,

Jennifer Mortensen
Ecological-Community Psychology
Michigan State University

Appendix F: Interview Informed Consent Form

Health Policy Diffusion and Implementation in Schools Informed Consent

Purpose of the Study: The purpose of this interview is to better understand the factors that facilitate and impede school districts in their efforts to diffuse and implement school health policies to improve the health of their students.

Procedures: The research team at Michigan State University (MSU) will be conducting phone interviews with Coordinated School Health Team members and School Principals from three school districts throughout Michigan. The interview will be approximately 60 minutes in length. Conditional upon your consent*, interviews will be recorded and may be transcribed for analysis. The interviewer will also be taking notes during the interview that will be entered into a computer for analysis.

Voluntary Participation: Your participation in this study is voluntary. You may choose to not participate in any part of this study. For example, you may choose not to answer any question in the interview. You may choose to not participate in this study at all. During an interview, if you wish to stop for any reason, the interview will end. There are no penalties to you if you choose not to participate in this study or if you choose to withdraw or discontinue your participation.

Confidential Participation: The research team at Michigan State University will use data collection and data reporting procedures that will protect the confidentiality of your participation in this study. Only the research team and Michigan State University's Institutional Review Board will have access to the data. Your privacy will be protected to the maximum extent allowable by law. The personal identities of all participants in this study, as well as anyone mentioned during the interviews, will not be reported in any reports. Recordings of the interviews will be collected via a digital recorder and will be stored on password protected computers. Hard copies of data collected from these interviews (i.e., interview notes and transcripts) will be kept in locked filing cabinets until identifying information has been removed. All electronic copies of all data will be stored on password-protected computers for 5 years after the close of the research project.

Potential Risks and Benefits: The risks associated with participation in this study are minimal. However, reports and publications that result from this data may utilize verbatim quotes from your interview. Therefore, there is a risk that something you say could be recognized by a colleague. The risk of personal identification is reduced, however, because all names and recognizable identifying information will be removed from any data presented in publications or reports that result from the findings of this study. You may also request at any time during the interview for statements you say to not be quoted in reports or publications resulting from this data. Further, the interview consists of open-ended questions such that you may volunteer as much or as little information as you choose, and you have the right to decline to answer any question or to end the interview at any time.

The potential benefit of participating in this study is the opportunity to reflect on your experiences and play a valuable role in improving the diffusion and successful implementation of health policies within school districts to address the issue of childhood obesity.

Also, participants will be entered into a lottery to win a $25 gift certificate from www.giftcertificates.com. One winner from each school district will randomly be selected following the completion of all of the interviews.

Contact Information: If you have any questions or concerns that are raised by participating in this study, such as scientific issues, how to do any part of it, or to report a research-related injury (i.e. physical, psychological, social, etc.) please call Jenny Mortensen at Michigan State University (866-343-5279) or Dr. Pennie Foster-Fishman at Michigan State University (517-353-4764). If you have any questions or concerns about your role and rights as a research participant, would like to obtain information or offer input, or would like to register a complaint about this research study, you may contact, anonymously if you wish, the Michigan State University Human Research Protection Program at 517-355-2180, FAX 517-432-4503, or e-mail irb@msu.edu, or regular mail at: 207 Olds Hall, MSU, East Lansing, MI 48824..

Consent to Participate: By providing your signature below you indicate your voluntary agreement to participate in this study. Note: You must be over the age of 18 to participate in this study.

Print Your Name: _____

Your Signature: _____ Date: _____

*By signing below, you agree **for the interview to be recorded** for analysis purposes only.

Your Signature: _____ Date: _____

PLEASE RETURN VIA FAX TO 517-432-2945

Appendix G: CSHT Interview Protocol

Case Study Interview Protocol-Coordinated School Health Team

Introduction to Phone Interview

My name is Jenny Mortensen and I'm calling from Michigan State University to do the interview we scheduled with you regarding your experiences implementing new health policies within your school district. I am talking to a variety of stakeholders like you in order to better understand how Coordinated School Health Teams diffuse and implement policies throughout their school district.

Just as a reminder, any information you share with me will remain confidential. Only myself and the other members of the MSU team will have access to the actual data containing names or other identifying information. The information you share will be combined with information from other interviews so that we can identify common themes and important points that we should include in the report. In order to facilitate this process and make sure our notes are as accurate as possible, the interview will be recorded however, if at any point you would like me to turn the recorder off, just let me know.

Let's begin talking a little bit about the _____ policy that your district implemented.

1. Is the policy still in place?
2. How many schools are implementing the new policy?
3. To what extent are the schools implementing it?

Now let's talk about how the new policy was spread throughout your district.

4. How were schools informed about the new policies?
    a. What type of communication was used?
    b. Would you say this was an effective way to get the word out?
        i. Why or why not?
    c. When did this communication begin?
    d. Were policy requirements clearly communicated to schools?
        i. Why would you say that?
5. Would you say that this policy was effectively spread to schools in this district?
    a. Why or why not?
    b. What helped to spread the new policy to schools across the district?
    c. What got in the way of spreading this policy to all schools across the district?
6. Was the new policy portrayed as better than current policies?
    a. If yes, how?
    b. If no, why not?
7. Was the new policy portrayed as compatible with current norms, values, beliefs, and practices?
    a. If yes, how?
    b. If no, why not?

8. Were schools able to see how the policy could be implemented in other schools?
    a. In what ways?
    b. If no, why not?
        ii. Would seeing implementation in other schools have helped those who were hesitant to implement the new policy?

Now let's talk about the implementation of these policies.

9. Would you say the policy was effectively implemented at schools across the district?
    a. Why or why not?
    b. What helped to implement the new policy within schools?
    c. What go in the way of implementing the new policy in schools?
10. Was there a shared vision about the importance of health promotion across the district?
    a. If yes, how did this impact the implementation of the new policy in schools?
    b. If no, how did this impact the implementation of the new policy in schools?
11. Was there a strong leader who led the effort to implement the new policy?
    a. If yes, what role did the leader play in encouraging implementation of the new policy in schools?
    b. If no, how did this impact the implementation of the new policy in schools?
12. Was there administrative support for implementing the new policy?
    a. If yes, how did this impact the implementation of the new policy in schools?
    b. If no, how did this impact the implementation of the new policy in schools?
13. Was there principal support for implementing the new policy?
    a. If yes, how did this impact the implementation of the new policy in schools?
    b. If no, how did this impact the implementation of the new policy in schools?
14. Did the School Principals feel they could effectively implement the new policy?
    a. If yes, how did this impact the implementation of the new policy in schools?
    b. If no, how did this impact the implementation of the new policy in schools?

Now let's talk about what implementation looks like for this policy.

15. What would we see if the new policy were fully implemented in schools?
16. How do schools vary in their use of the policy?
17. To what extent are schools using the new policy as it was intended?
18. You also implemented additional new policies in your school district. Did you have the same experience implementing those policies?
    c. What was similar?
    d. How did implementation of those policies differ?

Now let's talk a bit about the local neighborhood and school context.

19. To what extent does the neighborhood surrounding the school help support a healthy lifestyle?
20. Are there supports to encourage a healthy lifestyle such as free use parks, recreational facilities, or full service grocery stores?
    a. Are there elements or structures in your neighborhood that make it a challenge to lead a healthy lifestyle?
21. Within the school district, how engaged are parents?

22. How would you describe the overall school morale in your school district?

Finally, let's talk about the role of the CSHT in spreading the new policy throughout the district

23. What role did the CSHT play in spreading the new policy throughout the school district?
24. What role did the CSHT play in helping School Principals and other staff implement the new policy at the school level?

Appendix H: Complete Coding Framework

Diffusion
Policy Effectively Spread Throughout District
• Policy was Not Effectively Spread
o May Have Helped to Have Community Support for Policy
• Yes Policy was Effectively Spread
o Information Passed on to Buildings
Diffusion
• Barriers to Diffusion
o Difficulty Implementing the New Policy
o Lack of Leadership
o No Barriers to Diffusion
o Not a Priority in the District
o Parent Resistance to New Policy
o Teacher Resistance to New Policy
o There was Not a Strong Health Committee
o Traditional Ways of Celebrating Impeded Diffusion
• Facilitation of Diffusion
o Administrative Support of the New Policy
o Consistency Across Buildings Helped to Spread Policy
o District Needed a Policy Around PE Curriculum for New Staff
o Educating Students on Importance of Health Helped With Diffusion
o Getting New PE Equipment Though Grant
o Health Resources are Available to Help Support Policy
o Media Focus on Childhood Obesity Issue
o New Policy Part of a Bigger Health Effort
o Proper Training Around Policy Helped With Diffusion
o School Board Support Facilitated Diffusion
o Support From School Improvement Team
o Talking to Teachers Helped with Diffusion
o Teacher Buy-In Helped with Diffusion
Components of Rogers' Model
Relative Advantage
• No Previous Policy
• Yes Portrayed as Better Than Previous Policies
o Hung Posters to Educate Students About Health
o New Policy Supported New Supplies
o Now There Was Consistency Across the District with the New Policy
o Nurse Talked to Students In Classrooms About Policy

o Talked to Students About New Policy
o Research Evidence Used to Promote Policy
Compatibility
• Yes Portrayed as Compatible with Current Norms
o New Policy Built on Existing State Benchmarks for PE
o Other Health Initiatives Going On at the Time
▪ Try to Educate Parents on the Importance of Nutrition
o Support for School Health
• Could Have Better Connected Problem to Solution
Observability
• CSHT Meetings Provided a Space for Sharing Ideas About Policy
• District Health Coordinator Provided Ideas for Policy
• No Observability
o No Observability Because No Schools Really Took on the Policy
• Teachers Talk about Healthy Ideas
• Yes Schools Were Able to See Policy Implemented at Other Schools
o PE Teacher Goes to School to Help Teach with New Teacher
Communication Channels
• Board Approval of Policy
• Director Worked with Teachers to Select Policy
• Email
• Health Coordinator Worked With School Nurses
• Health Team Communicated New Policy
• Principal Talked about New Policy
• Letters to Parents
• Presentation or Principal Meeting
• Principals Talked to Parents Who Didn't Support Policy
• Teachers were Trained in How to Use Policy
• Through Other Grants or Programs Going on in the District
• Written Handout Provided to Staff
Was Communication Clear
• Communication Was Clear
o Answered Staff Questions About Policy
o Board Adopted The Policy, Making Communication Clear
o Educate Students on Importance of Health
o Policy Adopted District Wide
o Provided Clear Written Handouts About Policy
• Communication Was Not Clear About the Policy
Was Communication Effective
• Communication Was Effective
o Parents are Not Sending Unhealthy Snacks to School

o Student Handbooks Included Policy
o Teachers Selected Curriculum to Implement, Not Forced on Them
• Communication Was Not Effective
o Needed More types of Communication About Policy
• Go To PTA Meetings To Promote Policy
• Use Social Media to Communicate About New Policy
• Some Parents Did Not Read Letters That Were Sent Home
• Could Use More Communication
o Going to Individual Buildings to Promote Policy Would be More Effective
o More Face to Face Meetings would be More Effective
o Need to Provide Information to Effectively Communicate Policy
o A Start to Communication About Policy, Need More
Implementation
Is Policy in Place
• No Policy is Not in Place
o No Education About Policy
o There is No One to Enforce the Policy
• Yes Policy is in Place
o Policy is Part of Wellness Policy
How Many Schools are Implementing Policy
• All Schools are Implementing the Policy
o All Schools That Were Trained in the Policy are Implementing It
• Most Schools are Implementing the New Policy
o Older Teachers Resistant to New Policy
• No Schools Are Implementing the New Policy
• Only Know About Interviewee's Building
• Teachers Have Their Own Policies Around Snacks
o Teachers Encourage Parents to Send in Healthy Snacks for the Class--Not Around Parties
• Unsure if All Schools are Implementing Policy
Extent To Which Schools Use Policy As Intended
• May be Occasional Breaking of Policy
• Schools are Not Using Policy as it Was Intended
• Schools Are Using Policy To The Full Extent
• Some Schools Using Policy More Fully Than Others
o Initiative of the Teacher Determines Use
o Schools are Using Parts of Curriculum
o Support Teachers Receive Determines Use
• Unsure About Other Schools' Implementation

○ Interviewee's Building-Send out Information About Policy
Implementation
• Barriers to Implementation
○ Lack of Communication Prevented Implementation Across District
○ Not a Priority in the District
○ Physical Space Within School Made Implementation Challenging
○ Traditional Ways of Celebrating Birthdays and Holidays
• Facilitation of Implementation
○ A Go-To Person to Get Guidance Facilitated Implementation
○ Administrative Support for Implementation
○ Health Team Support for Implementing New Policy
○ Media Attention to Obesity Helped Implementation
○ Positive Attitude of Teachers Helped Implementation
○ Principal Support for Implementation of New Policy
○ School Nurse Facilitated Implementation
What Implementation of New Policy Looks Like
• Classroom Snacks and Rewards Policy
○ Healthy Rewards
○ Healthy Snacks in the Classroom
○ No Policy Around Personal Snacks
○ Non-Food Activities
○ Non-Food Prizes at Parties
○ Non-Food Rewards
○ Not Withholding Food as Punishment
○ Role Modeling Healthy Snack Habits
• Quality PE Curriculum Policy
○ Children are Not Getting Hurt in PE
○ Consistency in Curriculum Across Grade Levels
○ Learn About Nutrition Concepts
○ Lots of Activity During PE Class
○ Students Learn Fundamental Skills
Components of Durlak and DuPre's Model
Shared Vision
• Shared Vision Present Within District
○ A Group in the District Had a Shared Vision
○ Shared Mission Statement Around Coordinated School Health
○ Shared Vision Around Health Promotion in all Areas
○ Shared Vision Within School
• Impact of Shared Vision
○ Group with Shared Vision Came Up With Plan for Others to Follow

o People Understand Issue, but No Leader to Drive Effort
o Shared Vision Helped Promote Health in Many Areas of the School
o Shared Vision Helps Spread Healthy Ideas
o Shared Vision Made Implementation Easier
Program Champion
• Strong Leader Present
o Helpful to Have Funded Position for Health Coordinator
o Program Champion-District Health Coordinator
o Program Champion-School Improvement Coordinator
o Program Champion-School Nurse
o Program Champion-Superintendent
• Sometimes Strong Leader Present
• No Leader Present
• Role of Program Champion
o Attend HKHM Site Visits
o Connect with Other Initiatives in the District
o Have Passion for the Effort
o Help Teachers Select PE Curriculum
o Attend CSHT Meetings
o Help to Create New Policy
o Work with Teachers
o Provide Information
o Support When Taken to School Board
o Work with School Improvement Coordinator
Administrative Support for Policy
• Administrative Support Present
o Administrative Support-Cabinet
o Administrative Support-Central Office
o Administrative Support-School Board
o Administrative Support-Superintendent
• Impact of Administrative Support
o Administrative Support Helped with Consistency Across District In Implementation
o Administrative Support Mandates Policy
o Administrator Support had a Positive Impact
o Hard to Accomplish Much Without Administrative Support
o Speak About Importance of Policy
Principal Support for Policy
• Principal Support Present
• Some Principal Support Present
o Principal Support Within Interviewee's Building

• No Principal Opposition to the Policy
• Impact of Principal Support
o Policy Wouldn't Have Been Successful Without Principal Support
o Principal Support Makes Implementing Policy Easier
o Schools with Principal Support Implemented Policy More Easily, Those Without Support Took Longer
o Teachers Implemented Policy Because of Principal Support
Self Efficacy
• Principals Have Self Efficacy
• Teachers Have Self Efficacy for Implementing Policy
• Most Principals Had Self Efficacy
o Some Principals Needed Additional Support to Implement Policy
• No Self Efficacy for Implementing Policy
• Impact of Principal Self Efficacy
o Clear Training and Curriculum Around Policy Helped Teachers Feel Self Efficacy
o Positive Impact of Self Efficacy
o Principals Can Handle Situations That Arise Around Policy
o Principals have the Information, but Need to Prioritize Policy
o Principals Who Were Not Supportive and Ready Took Longer to Get On Board
o Principals Who Were Supportive of and Prepared for Policy Had Success with It
o Unsure About Impact of Self Efficacy on Other Principals
Neighborhood Context
Neighborhood Context Barriers to Healthy Lifestyle
• Challenges are Similar in Comparable Cities
• District Has Many Low Income Families
• Fast Food
• Healthy Food is Expensive
• Kids Play Video Games Instead of Exercising
• Lack of Healthy Role Models
• No Grocery Stores
• Not Many Healthy Restaurants
• Surrounding Neighborhood Is Not Safe
• Transportation is a Challenge
Neighborhood Context Support Healthy Lifestyle
• Community Center Present
• Grocery Stores Present
• Local Agency Support

• Local Initiatives Support Health
• Opportunities to Be Involved in Activities
• Parks and Recreational Facilities Present
Coordinated School Health Teams
Role of CSHT in Diffusion
• Coordinator Did Most of the Work
• CSHT Developed New and Wellness Policy
• CSHT Members Received Leadership Training
• CSHT Secured Funding for Policy
• Develop Written Materials about Policy
• District CSHT Oversees Building CSHT
• Don't Know Role of CSHT in Diffusion
• Inform Principals about Policy
• Nothing Would Have Happened Without CSHT
• Provide Information to Parents
• Role of Building CSHT in Dissemination
o Building CSHT Developed Written Handouts
o Building CSHT Members Talk to Staff About How to Implement Policy
o Building CSHT Filled Out School Health Tool
o Building CSHT Worked with School Improvement Team
o Building CSHT Talked to Teachers Not Following Policy
o Building CSHT Worked on Health Initiatives
Role of CSHT in Implementation
• Advocate for Policy
• CSHT Got Grants for Schools
• CSHT Helped Increase Buy-In For Policy
• CSHT was a Resource to Help with Implementation
• CSHT Made Presentations About the Policy
• CSHT Members Act as Models for Other Teachers
• CSHT Members Provided Feedback on the Policy
• Having People from Every Building on CSHT Helped with Implementation
• No Role

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