

**Case Study Approach Examining Local Wellness Policy
Development and the Perceived Impact
to the School Community**



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National Food Service Management Institute The University of Mississippi

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The purpose of NFSMI is to improve the operation of Child Nutrition Programs through research, education and training, and information dissemination. The Administrative Offices and Divisions of Information Services and Education and Training are located in Oxford. The Division of Applied Research is located at The University of Southern Mississippi in Hattiesburg.

MISSION

The mission of the NFSMI is to provide information and services that promote the continuous improvement of Child Nutrition Programs.

VISION

The vision of the NFSMI is to be the leader in providing education, research, and resources to promote excellence in Child Nutrition Programs.

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**CASE STUDY APPROACH EXAMINING LOCAL WELLNESS POLICY
DEVELOPMENT AND THE PERCEIVED IMPACT
TO THE SCHOOL COMMUNITY**

EXECUTIVE SUMMARY

There is increasing public concern that the number of overweight and obese children in the United States has become a national epidemic. The diets of school-aged children have changed dramatically over the past couple of decades. On average, these children consume too much fat, saturated fat, and sodium; less than one in five eat the recommended amounts of fruits or vegetables.

Because of the increasing public concern, Congress included in the Child Nutrition and Women, Infants, and Children (WIC) Reauthorization Act of 2004 a requirement for the development of a local wellness policy by the beginning of the 2006-2007 school-year for districts participating in the National School Lunch Program. The required wellness policy must include goals for nutrition education, physical activities, and other school-based activities that are designed to promote student wellness and provide assurance that all foods sold on campus meet nutrition guidelines. Also, a wellness committee must be selected to oversee implementation and a plan for measuring implementation of the wellness policy (Pub. L. No. 108-265, § 204). The purpose of this study was to capture the difference in the processes used to develop a wellness policy among four school districts in four regions of the country and investigate the perceptions of how implementing a wellness policy would impact the school community. In addition, the study examined the wellness committee members' assessment of the

importance of cost, time, commitment, and feasibility of wellness goals in the districts participating in the study.

The research followed a case study design methodology that included a structured interview, a survey instrument, and observations by wellness committee members and school administration. On-site data collection occurred in four school districts during a site visit in each school district. Data was organized, tabulated, and cross-checked from each site visit.

All of the case study districts were methodical in their development of a process to draft a wellness plan that would meet the requirements of the law. Steps included in the development process were as follows:

- Review existing health policies;
- Select a policy development team;
- Conduct a needs assessment;
- Draft a wellness policy using available resources;
- Create support for the policy;
- Adoption of the policy by the school board; and
- Prepare a plan to measure the effectiveness of the policy.

All school districts in the study selected wellness committee members to represent a diversity of positions in the school and school community. Committee members included the school nutrition program (SNP) director, superintendent/assistant superintendent, teachers, parents, school board members, and students. Some districts included members outside the school community to add depth to the wellness initiative.

Several sources provided most of the materials used by the districts to develop wellness policies. Wellness policy guides were provided by the USDA, as well as Team Nutrition

materials, planning guides, and regulation guidelines. State agencies supplied sample state policies and criteria for determining a healthy school environment. Three districts used the Center for Disease Control's *School Health Index* for self-assessment and as a planning guide. All districts utilized the sample policy models from the School Nutrition Association.

School districts planned a variety of avenues to inform the school and school community about the wellness policy requirements and benefits. Faculty and staff meetings, school newspapers, in-service training, and messages posted on the school electronic listserv were mentioned most often as a way of communicating to schools. Parent/teacher meetings, flyers/packets of information sent to parents, and the school lunch calendar were the most common methods planned to inform parents about the wellness policy.

As school district wellness committees worked to develop and implement a school wellness policy, they identified the key requirements for the successful implementation in their respective districts as well as barriers to implementation. Communication and a buy-in from all players were most often named as keys to success. Other key factors that were identified for successful implementation included networking, leadership, adequate resources, and weaving the policy into current activities. Barriers to successful implementation included lack of time, financial restraints, lack of communication, facility limitation, and cultural diversity.

Committee members agreed that the wellness policy would have an impact on student health. Changes in student eating habits, healthier menu selections, and increased physical activity were mentioned most often as evidence of the wellness policy impact. All of the committee members thought they would see evidence of the impact during the first year of implementation.

The goal assessment survey revealed that most committee members believed that, overall, the wellness policy goals for their district were important and feasible. Committee members indicated that while time for implementation and costs for implementation would increase slightly, it should not be a major obstacle for most of the goals. Committee members indicated a high level of commitment for implementing wellness policy goals.

Schools can play an important role in a national effort to prevent childhood obesity by promoting good nutrition, physical activity, and healthy lifestyles. School districts around the nation should embrace efforts to develop and refine local wellness policies to address the well-being of children. To ensure the health of future generations, school-based wellness policies must become a national priority. Findings from this study can help school districts improve existing policies and identify key elements for successful implementation.

INTRODUCTION

Developing healthy eating patterns during early childhood promotes optimal health, growth, and intellectual development. The school years are especially important because eating preferences that last a lifetime are often developed at school among peers. Many children consume two full meals at school and a number of others get an afternoon snack. Healthy food choices combined with physical activity in the school environment can lead to a healthier population with less obesity and problems associated with poor diets (Story, Kaphingst, & French, 2006).

Research on the diets of young persons indicates many school-aged children in the United States do not follow the recommendations of the Dietary Guidelines for Americans or the Food Guide Pyramid. On average, school-aged children consume too much fat, saturated fat, and sodium and less than one in five eat the recommended amounts of fruits or vegetables (CDC, 1996). There has been a dramatic change in the diets of school-aged children over the past couple of decades. During the years of 1989 to 1996, children's consumption of soda increased by 40%, and milk consumption dropped significantly. Calcium intake for females 9 to 13 years of age is 65% less than what is considered adequate, and teenage girls are at the greatest risk for iron deficiency (USDA, 2005b).

Obesity has become a serious national health concern for children and adolescents in all socio-economic groups. Over the past three decades, the number of children and youths who are considered overweight or obese has doubled. According to data from the National Health and Nutrition Examination Survey (NHANES) studies, during the years from 1971-1974, about 5% of children aged 2 to 19 years were obese. By 1976-1980, the prevalence of obesity was only

slightly higher, but between 1980 and 1984 obesity nearly doubled. By 1999-2002, nearly 15% of U.S. children of all ages were considered obese (Anderson & Butcher, 2006).

Obese children and youths are more likely than normal or underweight children to become obese as adults. Even in very young children, obesity can be a predictor of adult obesity. A 1997 study found that approximately 52% of children who were overweight between the ages of 3 and 6 were obese adults at age 25 years (Whitaker, et al., 1997).

Overweight children and adolescents have a higher risk for health problems during their youth and as adults. They are more likely to have risk factors associated with high blood pressure, high cholesterol, and Type 2 diabetes than children of normal body weight. Because of the associated risks between obesity and chronic disease, the overall health and wellness of children and adolescents has become a priority among public health officials (Ogden et al., 2002). Policymakers around the nation have become convinced that obesity among children and adolescents is indeed a problem and are searching for effective ways to combat the problem (Paxson et al., 2006). Because increased physical activity and appropriate calorie intake are at the core of preventing and reducing obesity, government and state agencies, health professionals, and private organizations are developing educational strategies to increase public awareness about the benefits of good nutrition and exercise (Greves & Rivara, 2006).

A number of health programs have been designed over the past two decades to assist schools in providing a healthy school environment to prevent obesity among school-aged children. In the 1990s, government agencies and other organizations began developing and promoting educational programs and activities aimed at building awareness and support for wellness programs that reduce obesity and improve the health and well being of school children. Since 1992, the Centers for Disease Control and Prevention (CDC) has assisted states and school

districts in implementing various components of a coordinated school health program. Based on the available scientific literature, national nutrition policy documents, and current practice, CDC's *Guidelines for School Health Programs to Promote Healthy Eating* provides recommendations for ensuring a quality nutrition program within a comprehensive school health program (Kolbe, Kann, & Brener, 2001).

In 2001, the U. S. Department of Agriculture's (USDA) Team Nutrition Project developed a guide, *Changing the Scene*, which outlines six components needed for a healthy school environment. It also includes guidelines for establishing a school nutrition team, criteria for determining success, and ideas for activities that promote healthy lifestyles. The goal is to create a school environment that is conducive to healthy eating and encourages physical activity.

In 2002, the National Association of State Boards of Education (NASBE) published the school health policy guide *Fit, Healthy, and Ready to Learn* to provide direction for schools in developing school health policies that encouraged healthy eating and physical activity. The guide contains sample nutrition and physical fitness policies, research based examples of food consumption trends, and references to further assist school districts in improving the school environment.

In more recent years, national agencies such as the Institute of Medicine (IOM) also recognized the impact that unhealthy foods and beverages have on children's health and childhood obesity. The IOM recommended the following guidelines for a healthy school environment addressing the childhood obesity epidemic:

- Establish nutritional standards for all "competitive foods";
- Establish a minimum of 30 minutes of activity during the school day;
- Enhance school health curricula;

- Ensure all school meals meet the Dietary Guidelines for Americans;
- Ensure schools are as advertising-free as possible; and
- Conduct annual assessments of student weight, height, body mass index (BMI), and make data available to parents (IOM, 2007).

Because schools are a critical part of the social environment that shapes lifelong habits of school-aged children, public support for providing a more healthful school food environment is growing. Many school-aged children eat a large share of their daily food while at school through the National School Lunch Program (NSLP) and School Breakfast Program (SBP). Currently, about 95% of U.S. children have daily access to federally funded programs that offer nutritious meals at school (Children's Nutrition Research Center, 2005). In addition to lunch and breakfast, the reimbursable snack service was established in 1998 as part of the NSLP Public Law 105-336 to provide nutritious snacks to children participating in qualified afterschool care programs. Many schools also offer à la carte in the school cafeteria, foods in vending machines, and snack foods at snack bars, school stores, and fundraisers. Through various meal services and other food offerings, schools have an opportunity to make a difference in students' eating habits (USDA, 2005b).

Schools participating in the NSLP and SBP are required to serve meals to students that meet federal program regulations and nutrition standards. Federally funded school meal programs must meet specific meal pattern requirements, and set nutrition goals to ensure healthy school meals. Nutrition goals include meeting one-third of the recommended dietary allowances for specified nutrients for lunch and one-fourth for breakfast. School meals must also be consistent with the 2000 Dietary Guidelines for Americans including serving a variety of foods,

grain products, vegetables and fruits, and no more than 30% of calories from fat and less than 10% of calories from saturated fat over a week's time (USDA, 2006).

Because of increasing public concern over childhood obesity, Congress reacted by passing a law requiring school wellness activities. The Child Nutrition and Women, Infants, and Children (WIC) Reauthorization Act of 2004 required school districts that participate in the NSLP or SBP to develop a local wellness policy program by the beginning of the 2006-2007 school year (Pub. L. No 108-265, § 204).

Specifically, the school district's wellness policy was required by law to contain the following five components:

- Set goals for nutrition education, physical activity, and other school-based activities that are designed to promote student wellness;
- Provide nutrition guidelines selected by the local educational agency for all foods available on each school campus;
- Provide assurance that guidelines for reimbursable school meals are not less restrictive than regulations and guidance issued by the Secretary;
- Establish a plan for measuring implementation of the local wellness policy, including designation of one or more persons with the local educational agency or at each school charged with the operational responsibility for ensuring that the school meets the local wellness policy; and
- Involve parents, students, and representative of the school food authority, the school board, school administrators, and the public in development of the local wellness policy.

The federal law placed responsibility for development of a wellness policy at the local level to ensure the involvement of schools, parents, students, and the entire community in the issues of child nutrition and health. Although local communities retain the flexibility to develop policies that meet the needs of their community, the law mandates each policy must address nutrition, physical activity, and other school-based activities designed to promote wellness, guidelines for all foods available to students during the school day, and a plan for measuring implementation (USDA, 2005a). How local policy makers perceive the health and nutritional needs of students will play a large role in formulating and implementing the nation's wellness policies over the long term.

Creating any type of policy requires careful organization and extensive planning. Implementing new policies often means change for those affected by the policy. The elements of this change must be identified and plans developed accordingly. It is important to obtain support from the players in order for the policy to be smoothly adopted and widely accepted. A fundamental principle of effective change management is that people support what they help to create (Lippitt, Watson, & Westley, 1958). A successful wellness initiative will require active participation by all parties in the school community affected by the change process.

One of the greatest challenges to implementation of a wellness policy may be the necessity to bring about change in both attitudes and behaviors in school districts throughout the nation. These changes must be reflected not only in student behavior, but also in the behavior of school administrators and educators. Rainville and colleagues (2003) found that 47% of school professionals felt that a healthy school nutrition environment was not a priority. In a study to assess the role of principals regarding nutrition practices, Shahid (2003) found that while

principals desired to be involved in the development of nutritional policies, they had no clear understanding of the effects on nutrition and learning.

Students often present the greatest barrier to change in eating habits and physical activities. Studies indicate that while young persons appear to have a general knowledge of the relationship between nutrition and health, they do not use the knowledge to make healthy food choices (CDC, 1996).

If school officials, wellness committee members, and the school community are successful in implementing the wellness policy requirements, they will need to understand the impact of change, identify the barriers to change, and formulate recommendations to reduce those barriers. Schools have a unique opportunity to overcome barriers and lead the way to a healthier school community.

In a project to identify barriers to implementing a school wellness policy, a task force appointed by the Illinois State Board of Education identified five top barriers to implementing school wellness policies in Illinois (2006). The barriers were identified as follows:

- Schools are dealing with other priorities perceived as having more significant consequences;
- Policy development and implementation are not viewed as requiring a coordinated team approach;
- Lack of resources available to schools to implement wellness goals (e.g. time, staff, money, and facilities);
- Lack of awareness on the relationship between wellness issues and academic achievement; and
- Schools fear a loss of revenue streams.

The development of a wellness policy and the resulting changes throughout the school community will require cooperation among school administration, school staff, parents, school nutrition staff, and community members. One of the more common change theories that could help schools and communities bring about changes in health behavior is a three-stage model developed by the social scientist, Kurt Lewin (Burke, 2002). Lewin theorized a model of change that has become known as the unfreezing-change-refreeze model that requires prior learning to be rejected and replaced. Unfreezing involves preparing individuals or groups to accept change. Introducing change occurs when individuals or groups have accepted the needs for change. The specific changes to be introduced must be understood and accepted. Refreezing is the process by which newly acquired behaviors become regular behaviors. This occurs when new behaviors become habitual. School districts should anticipate moving through these three stages to achieve changed behavior in regard to wellness as a concept. How successful school districts are in change management may influence their success in implementing a wellness policy.

The purpose of this study was to capture the differences in the processes used to develop a wellness policy among four school districts in four regions of the country and to investigate the perceptions of how implementing a wellness policy would impact the school community. Encapsulating these processes and anticipated changes can help other districts nationwide develop, implement, and evaluate a wellness policy and carry out other types of wellness plans as the need arises. The study further examined the wellness committee members' assessment of the importance of cost, time, commitment, and feasibility of wellness goals in the case study districts. Identification of these factors will provide insight into possible barriers to implementation of a wellness policy.

Research Objectives

The research objectives that guided this study include the following:

- Identify processes and resources used by four school districts in developing a district-wide school wellness policy; and
- Identify the various components of each school district's wellness policy as they relate to requirements of The Child Nutrition and WIC Reauthorization Act of 2004.

METHOD

Research Plan

This research was designed as a multiple, embedded case study using four school districts in four USDA regions of the United States. By using a multiple-case study design, a comparative approach with the four case study sites allowed researchers to systematically collect and analyze information obtained from each school district. The primary units of analysis are the processes and resources used by the four school districts in developing a local wellness policy. Using the exploratory qualitative approach to data collection, the research was designed to answer the following two questions:

- What was the process used by the school district administration to facilitate the development of a wellness policy?
- What resources were used or obtained by the wellness committee members to support the development of a wellness policy?

Each of the individual case studies consisted of a “whole” case study which sought evidence to support the study’s objectives. After the individual case studies were analyzed for pertinent data, a cross-case search for patterns was conducted. Data was compared to determine commonalities and differences in the processes and resources used to develop wellness policies in the case study school districts.

The primary data were collected through structured interviews, survey instruments, and observations by wellness committee members and school administration. Repeat interviews were conducted via telephone or electronic communication to gather additional data to verify key observations and to check facts.

Informed Consent

The Human Subjects Protection Review Committee of The University of Southern Mississippi approved the protocol for the research project. Information for the case study was recorded to protect the anonymity of participating school districts and individuals engaged in the interview process. Permission to conduct the interviews during a school site visit to collect data served as consent.

Site Selection

Four school districts were selected from four different USDA geographic regions (Mid-Atlantic, Southeast, Mountain Plains, and Midwest) to include in the case study research. School districts included in the study met the following criteria:

- Student enrollment of 3,000 to 20,000;
- A school wellness committee actively working on implementing the wellness policy;
- District wellness policy completed or near completion;
- Inclusion of all five components required by law in the wellness policy; and
- School superintendent and nutrition program director willingness to participate.

To begin the selection process, the National Food Service Management Institute, Applied Research Division (NFSMI, ARD) contacted state agency directors in each of the four regions chosen for recommendations of school districts that met the research parameters to participate in the study. State agencies recommended names of school districts that met the research criteria to participate in the case study and provided a brief profile of those school districts' involvement in developing a wellness policy. NFSMI, ARD followed up with telephone calls to the SNP directors to confirm that the recommended school districts met the research criteria and were willing to participate.

Data Collection Instrument

Two data collection instruments were developed using case study methods outlined by Yin (2003). The first data collection instrument, *Goal Assessment by Members of the School Wellness Policy Committee*, was designed to allow the school wellness committee members to assess the district's wellness goals as outlined in the school wellness policy. Participants were asked to rate the importance of each of the school district's wellness goals on five aspects: importance, cost, time, commitment, and feasibility. Each goal was rated on a five-point Likert-type scale of 1 (*not important*) to 5 (*very important*). A five-point Likert-type scale was used in the assessment because, according to Spector (1992), a five-point scale breaks up the categories so that those who feel strongly can be distinguished from those with more moderate feelings. The instrument was mailed to members prior to the site visit.

The second data collection instrument was a set of pre-determined questions designed to be used in a structured interview with school wellness policy committee members. The interview questions were written to solicit members' beliefs and perceptions regarding the processes and resources used in the development of a wellness policy for the school district, and the implication for change as a result of the school district adopting and implementing a wellness policy. A researcher conducted the structured interview individually with five selected wellness committee members and either the school district's superintendent or assistant superintendent. Committee members chosen for the interview included an elementary teacher, elementary principal, elementary parent, school nutrition program (SNP) director, and the wellness committee chair. If the committee chair served in the role of one of the other committee members interviewed, an additional individual from the committee was requested for the interview process. The interview included questions related to the functions of the wellness committee expectations for a wellness

plan, the impact of implementing a wellness policy, and the perceptions of costs and time to implement a policy, barriers to implementation, and how goals were selected.

Data Collection Procedures

When the site selections for the case study were finalized, school districts were notified and a date established for a site visit. The SNP director was contacted via electronic mail to establish parameters for the site visit and determine an agenda for the interview process. Approximately one month before the scheduled site visit, a copy of the goal assessment survey was mailed to each member of the wellness committee along with directions for rating the goals. Committee members were asked to complete the survey and return it to the researcher prior to the site visit date. A self-addressed, postage-paid envelope was provided for return of the survey.

Pilot Site Visit

The case study procedures were field tested during a two-day site visit to the pilot school district. The pilot site was chosen based on convenience, access, and willingness of the district to participate. The pilot test included reviewing the goal assessment instrument and conducting a structured interview using predetermined questions with selected members of the wellness committee. Based on the pilot test results, minor modifications were made to refine procedures and improve direction clarity. No other additions were made to the data collection instrument or interview questions.

Case Study Site Visits

On-site data collection and interviews occurred during a two-day visit in each school district. Site visits included the following research activities:

- Interview with the SNP director;
- Interview with either the superintendent or assistant superintendent;

- Interview with other selected members of the school district's wellness committee on an individual basis;
- Review of the school district's wellness policies and other documents that reflect the processes used for development of the wellness policy; and
- Wrap-up summary discussion with the SNP director.

Data Analysis

Upon collection of the goal assessment data collection instrument from respondents, the data were analyzed as it applied to each wellness goal in the case study districts. Each goal was scored according to importance, cost, time, commitment, and feasibility. The goals were categorized according to components addressed in the federal law requirements and a mean score calculated for each category.

Once the school site visits were completed, interview responses, field notes, and other data were examined using strategies outlined by Yin (2003). Interview responses and the researcher's field notes were organized, categorized, and clarified with a follow-up telephone call or email correspondence. The wellness policy from each school district and other related documents were examined according to component requirements and established criteria for policy development. Data were tabulated and cross-checked from each individual site visit. After the individual case studies were analyzed for pertinent data, a cross-case search for patterns was conducted. In the cross-case analysis, the data was investigated across all four districts. Data about each site's activities were then compared to determine processes and resources used by the four school districts in developing their wellness policy.

RESULTS AND DISCUSSION

Demographics

The demographic characteristics of school districts taking part in the study are presented in Table 1. To protect the anonymity of the study participants, school districts were designated as A, B, C, and D in this report with school District A as the pilot. School districts participating in the research project ranged in size from a small district with five schools and an enrollment of 3,185 students to a larger school district with 19,581 students enrolled in 31 schools. The majority of the students in the districts were of either Caucasian or African-American background. However, Hispanics made up the second largest ethnic group in District B.

The number of students eligible to receive free or reduced priced meal benefits in the SNPs ranged from 23% in District D to 48% in District A. The percent of students eligible to receive meal benefits was calculated using the total enrollment in each of the school districts. For the three school districts that reported average lunch participation rates, the percent ranged from 52% to 73% in the elementary schools. Middle school participation ranged from 40% to 86% of total enrollment and high schools in the study had participation rates ranging from 18% to 53%. District C did not report actual participation rates for lunch, but indicated that it was in more than 80% in the elementary schools.

Table 1

Demographic Information of Case Study Sites

Demographic	District A	District B	District C	District D
USDA Region	Southeast	Midwest	Mountain Plains	Mid-Atlantic
District Enrollment	3,185	4,255	19,581	9,868
Number of Schools in District				
High Schools	1	1	4	2
Middle Schools	1	1	5	3
Elementary Schools	3	4	22	7
Ethnic Breakdown				
Caucasian	49%	67%	81%	31%
African-American	45%	4%	6%	58%
Asian	2%	1%	2%	2%
Hispanic	4%	27%	6%	8%
Other	<1%	<1%	5%	2%
Meal Eligibility				
Free	41%	37%	23%	18%
Reduced	7%	9%	7%	5%
Average Lunch Participation				
High School	40%	53%	Not reported	18%
Middle School	70%	86%	Not reported	40%
Elementary School	73%	71%	Not reported	52%

School Wellness

All four schools in the study were in the process of developing an action plan for creating a local school wellness policy at the time of this study. Without standard procedures mandated in federal legislation for developing a school wellness policy, the processes used by the committee members varied from district to district. Committee members were often solely responsible for reviewing existing laws and guidelines, assessing the district's needs, drafting a policy, securing board adoption, and establishing a plan for policy evaluation.

School districts in the case study used a series of actions to facilitate the development of the policy. The schools were methodical in their development of a process to draft a wellness plan that would meet the district's needs, be accepted by the school community, and obtain approval of the school board. In general, the action plan used by the case study districts emulated the eight steps recommended on the *Action for Healthy Kids* Web site. *Action for Healthy Kids* is a public-private partnership of more than 50 national organizations and government agencies representing education, health, fitness and nutrition. The Web site includes the following recommended steps:

- Review existing wellness activities and district requirements for the development of a policy;
- Select a policy development team;
- Assess the school district's needs;
- Draft a wellness policy;
- Create awareness and support for the local school wellness policy;
- Adoption of the wellness policy by the School Board;

- Implement the wellness policy; and
- Prepare a plan to maintain and evaluate the policy.

Table 2 summarizes a similar approach used by the case study school districts to complete the necessary steps leading to the development of a local school wellness policy. A more thorough discussion of the action steps follows the summary table.

Table 2

Action Plan for Policy Development in the Case Study Districts

Steps to Wellness Policy Development	District A	District B	District C	District D
1. Review of existing wellness activities and district requirements	Identified existing state/local laws and reviewed relevant state and district requirements	Reviewed current policies related to the USDA's <i>Healthy School Environment</i>	Reviewed current policies related to wellness (i. e. supplemental food policy, health class curriculum, state nutrition standards)	Reviewed state nutrition standards as they related to the wellness policy requirements
2. Policy development team selection	Superintendent identified chairman and other committee members as specified by law	Superintendent requested a list of potential members from chair; then along with two assistant superintendents made final selection	Superintendent assigned wellness committee chair and members	Superintendent appointed coordinator for school health as chair
3. Needs assessment	<i>Nutrition and Physical Activity Environment Assessment</i> provided by SDE	<i>School Health Index: a Self-Assessment and Planning Guide</i> provided by CDC	<i>Model Wellness Policy</i> provided by the SDE	Not reported
4. Drafting a wellness policy	Policy draft placed on school Web site for school and community input	Committee customized CDC <i>Health Index</i> results to school district needs	First draft presented to the policy and review committee, then school board for input	School health advisory committee reviewed the draft and made recommendations. Draft posted on the school Web site for review by community

Note: Processes adapted from Action for Healthy Kids: Wellness Tools (Table 2 continues)

(Table 2 continued)

Action Plan for Policy Development in the Case Study Districts

Steps to Wellness Policy Development	District A	District B	District C	District D
5. Creating awareness and support	In progress at time of study	In progress at time of study	In progress at time of study	In progress at time of study
6. School board adoption	Yes	Yes	Yes	Yes
7. Implementing the wellness policy	Policy will be implemented immediately as adopted	Policy will be implemented immediately as adopted	Policy will be phased-in	Policy will be implemented immediately as adopted
8. Preparing an evaluation plan	Conduct an annual review of progress and submit annual report to the board	Repeat assessment every 3 years. Superintendent will monitor and provide annual compliance report to the board	Designated a committee representative to determine if policy is followed	School health advisory committee will review policy annually. The superintendent will ensure compliance.

Note: Processes adapted from Action for Healthy Kids: Wellness Tools

Step One: Review of Existing Wellness Activities and District Requirements

for the Development of Policy

Prior to beginning the development of a district wellness policy that would meet federal requirements, all four districts in the case study conducted a review of existing wellness programs. Much of the information provided to the researcher about this review was global in nature rather than specific. At the time of the study, committee members were aware of procedures required by the district for development of policy or indicated they planned to verify the procedures prior to drafting the wellness policy. District A indicated they reviewed existing state laws related to wellness and district requirements for setting new policy. Districts B and C reviewed policies related to the healthy school environment as it related to the USDA Team

Nutrition materials. District D reviewed the nutrition standards set by their state agency for SNPs and compared them with the federal requirements for a wellness policy. Reviews were either conducted by the SNP director or school health professionals.

Step Two: Selection of a Policy Development Team

Although Congress attached the mandate for school districts to adopt a wellness policy to the Child Nutrition and WIC Reauthorization Act of 2004, it is not the sole responsibility of SNP directors to develop the policy. According to the act, school districts should have a diverse wellness committee comprised of parents, students, teachers, school nutrition staff, administrators, students, school board members and the public to develop, implement, and monitor the school wellness policy (USDA, 2005c).

According to the Food and Nutrition Services of USDA (2005a), members of effective policy teams should have characteristics that include the following:

- A demonstrated interest in improving school nutrition and physical activity in schools;
- Effective communication skills;
- An understanding of the school district's requirements for policy;
- Policy-related experience in the district; and
- Proven record as a team player.

Superintendents in the case study districts participated in selection of the wellness committee members, including appointing the chairman. The committee chairs represented a diversity of positions in the school community. As shown in Table 3, committee chairs included a director of the school nutrition program, a director of elementary education, a coordinator for school health initiative, and the president of the local Parent-Teacher Association. Either the

superintendent or assistant superintendent served on the committee in each of the districts.

Teachers, parents, students, and school board members were represented in the four case study districts in addition to principals and other school administrators. Although an SNP director served on the wellness committee in each of the case study districts, only one served as chair of the committee. Members selected to serve on a wellness committee had indicated they were willing to participate in creating a healthy school environment.

Table 3

Wellness Committee Members in the Case Study Districts

District A	District B	District C	District D
School Nutrition Director	School Nutrition Director	(Chair) School Nutrition Director	School Nutrition Director
Superintendent	Superintendent	Assistant Superintendent	Superintendent
Elementary Principal	Elementary Principal	Elementary Principal	(Chair) School Health Coordinator
Elementary Teacher	Elementary Teacher	Middle School PE Teacher	Health Teacher
Parent (Healthcare Professional)	(Chair) Parent, President of PTA	Parent	Parent
Students (2)	Students (2)	Student (1)	Student (1)
School Board Member	School Board Member	School Board Member	School Board Member
(Chair) Director Elementary Education	Coordinator for Steps Program		Coordinator for Science

By placing the responsibility of developing wellness policies at the local level and requiring community involvement, Congress created the potential to engage schools, parents, students, and the entire community in bringing about the necessary changes to establish a healthy school environment for the prevention of childhood obesity and for combating problems associated with poor nutrition and lack of physical activity (USDA, 2005a).

Step Three: Assessment of the School District's Needs

Once the wellness committee members were selected, the next step was to assess the nutrition and physical activity in the school district to identify specific needs. A variety of assessment tools was available to assist school districts in identifying the strengths and weaknesses of existing nutrition and health programs. The school districts in this study generally selected tools available from a state agency or a nutrition related organization for assessing current wellness activities in their districts. Three districts used assessment tools provided by their state agency overseeing SNPs. District B used the school health index self-assessment and planning guide developed by CDC (2004) that enables schools to do the following:

- Identify the strengths and weaknesses of their school health promotions policies and programs;
- Develop an action plan for improving student health; and
- Involve teachers, parents, students, and the community in improving school policies, programs, and services.

Step Four: Drafting a Wellness Policy

Development resources and materials

School district wellness committees recognized the importance of gathering materials, sample policies, and other resources to help guide the development of a wellness policy before

beginning the drafting process. They sought the help of government agencies as well as private organizations.

In recognition that school wellness policies must meet the needs of various socio-economic, cultural, and ethnic populations, many education and health organizations/agencies developed resources and guidelines to assist school districts in creating wellness policies for their schools (Federico, 2006). Resources included materials from organizations and agencies such as USDA, SNA, CDC, Children's Nutrition Research Center, NFSMI, State CNP agencies, FRAC, and National Alliance for Nutrition Activity. Materials ranged from sample wellness policies to guidelines for development.

Several Web sites were developed to assist school districts with the process of developing wellness policies that included steps to follow in policy development and sample model wellness policies. The FNS, School Nutrition Association (SNA), state agencies, and other professional organizations were some of the first groups to provide online help to school districts.

Table 4 provides a summary of selected sources of resources and materials used by school districts in the study to assist the wellness committee in drafting a wellness policy. The number of resources used by the districts was extensive, therefore only a selected few are mentioned in this paper.

Table 4

Sources of Selected Resources Available to School Districts

Resources Available	District A	District B	District C	District D
USDA	USDA Team Nutrition Materials USDA Regulations	USDA Wellness Policy Guides Tools for Menu Planning USDA Team Nutrition Materials	USDA Team Nutrition Materials USDA Regulations	USDA Team Nutrition Materials SMI: Road to Success
CDC	School Health Index	Healthy Youth School Health Index	School Health Index	School Health Initiative Project
State Sources	State Healthy School Environment Criteria \$3,000 in grant funds	State Policy Guides State Health Curriculum State Nutrition Standards	State Wellness Policy Guide	State Policy Samples State Health Care Foundation
School Nutrition Association	Wellness Policy Guidelines: Health and Wellness	Wellness Policy Guidelines: Health and Wellness	Model Policies	Model Policies Healthy Kids Challenge
National School Board	Fit, Healthy, and Ready to Learn Model Policies	X	Fit, Healthy, and Ready to Learn Model Policies	Model Policies
National Alliance for Nutrition and Activity (NANA)	X	Model School Wellness Policies	X	Model School Wellness Policies
Other	NFSMI Healthy, Fit, Ready to Learn	Action for Healthy Kids	Action for Healthy Kids	Received a grant from a local Community Health Foundation National

In addition to the above mentioned resources, two school districts asked for input from faculty, administrators, and community leaders before the final draft was submitted to the board for approval. One district used the school district Web site to post the draft and solicit feedback.

Challenges to policy development

The wellness committee members in the four case study school districts were asked what specific challenges and barriers they thought would hinder the development of a wellness policy. Committee members in all districts expressed concern regarding both development and implementation. Table 5 depicts comments regarding challenges to development. Lack of time was mentioned as a barrier for development by key committee members in three of the four case study school districts. Disagreement as to purpose and differences in expectations were mentioned. Interestingly, none of the superintendents chose to answer the question.

Table 5

Challenges and Barriers to Developing a Wellness Policy

Committee Member Title	District A	District B	District C	District D
FNS Director	Lack of time and understanding of policy intent	Perceiving the policy as nutrition services	Lack of time	Perception of school nutrition policies
Parent	None	Fund raisers	Financial and scheduling issues	No opinion
Teacher	State bid requirements for food items	Unrealistic expectations	Need to see more ideas from other policies	Lack of time; reaching consensus
Principal	Disagreement among members	Different expectations and beliefs	Budget, time, facility limitations	No opinion
Superintendent	No answer	No answer	No answer	No answer

Step Five: Creating Awareness and Support for the Local School Wellness Policy

If school districts expect the implementation of a wellness policy to succeed, building awareness and support among all stakeholders for the wellness initiative is important. School officials must realize that while schools play a critical role in shaping the wellness activities of young people, there are many other influences on the diets and activities of school-aged children. Families, communities, religious institutions, and peers are equally responsible for affecting the lifestyles of children and adolescents (Story, Kaphingst, & French, 2006). Successful development of a wellness policy in the school district depends on support from key players who can act as change agents.

Leaders in the community along with federal, state, and local government agencies play an important role in promoting school wellness. Students, community leaders, and the local media are important to building awareness and support for a school wellness policy, in addition to school officials and teachers (USDA, 2005c).

At the time of this research project, the case study school districts were in the developmental stages of establishing a wellness policy. Final plans for creating school and community awareness and support were incomplete. However, as a precursor to identifying an approach for creating general public awareness, school officials participating in the study planned a variety of avenues to inform teachers, students, and parents about the wellness policy requirement. Faculty meetings, parent/teacher meetings, school newspapers, school Web sites, electronic listservs, promotional flyers sent to parents, and teacher in-service sessions were some of the ways mentioned during the interview with wellness committee members (see Table 6). Most wellness committee members expressed confidence that the types of promotions planned would lead to increased awareness and support for the school wellness policy.

Table 6

Avenues to Inform School and Community of Wellness Policy Requirement

District	Avenues for Information
District A Southeast	School listserv Faculty meetings Flyers sent home to parents Newsletters to teachers Parent/teacher meetings with principals
District B Midwest	School Board announcements School newspaper Packets of information sent to parents Electronic bulletin (listserv) to teachers/staff Staff team meetings at site level Weekly staff meeting with principals
District C Mountain Plains	In-service training with staff School Web site School cable television channel School lunch calendar Informational handouts sent home to parents Monthly faculty meetings
District D Mid-Atlantic	Staff and teacher in-service sessions at the beginning of year Healthy Kids Challenge meetings Staff development committee meetings Faculty meetings at site level PTA meetings

To determine how wellness committee members initially became aware of the requirement for a school wellness policy, the researcher asked members how they had been informed about the requirement for a district-wide school wellness policy. SNP directors and superintendents had most often been informed during state or national meetings. The SNP director was named most often as the first source of information for teachers, principals, and parents (see Table 7).

Table 7

First Source of Information about School Wellness Policy Requirement

Committee Member Title	District A	District B	District C	District D
SNP Director	State Department	State Department	National Association Meeting	State Department
Superintendent	Foodservice Director	SBA ^a Model Policy	State Department Meeting	Department of Education
Principal	Foodservice Director	Foodservice Director	Foodservice Director	Assistant Superintendent
Teacher	Foodservice Director	School Principal	Televised News Report	Student Services
Parent	Another Parent	Health Coordinator	School Board Meeting	No answer

^aSBA (School Board Association)

Step Six: Adoption of the Wellness Policy by the School Board

In most school districts, the School Board of Education must approve any new policy before it can be implemented. The Board may ask for public input into an initiative that requires widespread change. Presenting a policy to the Board necessitates a great deal of preparation on

the part of the superintendent and school wellness committee. Food and Nutrition Service of the USDA suggests that the school wellness committee prepare a persuasive and concise report in support of the policy and provide supportive background information (USDA, 2005c).

All of the case study school districts requested and received approval for the implementation of a school wellness policy. Districts varied in how they planned to implement and evaluate the school wellness policy.

Step Seven: Implementing the Wellness Policy

As required by law, the school district must designate one or more persons to insure the wellness policy is implemented as written. Oftentimes, implementation of the wellness policy may be seen as the responsibility of the school nutrition staff, physical education faculty, or school nurse. In order for a wellness policy to be meaningful and purposeful, it must be developed and implemented with input and leadership at all levels of the school environment and community (SNA, 2006).

The schools in the study were aware that implementation of the wellness policy in their school districts would require planning, good communication skills, constant oversight, and widespread buy-in from the school administration, faculty, staff, students, and parents. Table 8 summarizes the committee members' comments as they related to their opinions of the key to successful implementation of a school wellness policy.

Table 8

Key to Successful Implementation of a School Wellness Policy

Committee Member Title	District A	District B	District C	District D
SNP Director	Communicating policy mandates to the public	Buy-in from all players	Community and parent buy-in	Communication with parents, teachers, students
Parent	Networking to build support	Education	Accountability and leadership	No opinion
Teacher	Support and resources	Willingness to give the project time to develop	Promoting the policy in a positive manner	Support, communication, realistic about goals
Principal	Teacher influence	Student participation and involvement	Taking time to do it right	No opinion
Superintendent	Changing the mind-set of the community	Weaving the policy into current activities	Link to community programs such as YMCA	Not present for interview

Identification of barriers is as important in the implementation phase of a school wellness policy as the development phase. When the NFSMI researcher interviewed committee members about barriers to implementing a wellness policy, comments indicated respondents had similar concerns as those found in the Illinois State Department of Education study (2006) previously discussed in this paper. Lack of resources such as time, money, and facilities were all mentioned in the case study interviews (see Table 9). Only one committee member, the superintendent in District B, thought there would be no barriers to implementation.

Table 9

Barriers to Implementing the Wellness Policy

Committee Member Title	District A	District B	District C	District D
SNP Director	Communication within school community	Lack of classroom time, finances	Financial restraints	Educating teachers and parents
Parent	Lack of time and funding	Cultural diversity, socioeconomics	Funding	No opinion
Teacher	Lack of funding	Difficulty of changing	Lack of communication	Getting the necessary commitment from all players
Principal	Individuals not "sold" on program	Lack of money to support activities	Facility limitations; budget for PE activities	No opinion
Superintendent	No opinion	No roadblocks	Financial and time	Lack of marketing to secure support

Step Eight: Preparing a Plan to Maintain and Evaluate the Policy

Once the policy is adopted and implemented, the school district must take action to develop a plan for maintaining and evaluating the policy. Evaluation and feedback from students, parents, teachers, and administration are important activities in maintaining a local wellness policy. USDA (2005a) suggests the evaluation process should seek answers to at least three basic questions:

- What changes to nutrition education, physical activity, the nutritional quality of foods, and other aspects of the policy occurred in the school district as a result of the district wellness policy?

- Did the policy and implementation address the issues identified in the needs assessment?
- How can the impact of the policy be increased to enhance its effect on student health and academic learning?

When committee members from the four districts were asked their opinion of how they could assess whether the new wellness policy impacted student health, most pointed to some type of changed student behavior. Of the twenty committee members interviewed, twelve members indicated they expected some type of change in eating habits such as healthier menu selections (see Table 10). Other indications of impact on student health included more support from educators and increased opportunities for healthy activities.

Table 10

Wellness Committee Members' Answers to the Question, "How will you know if the wellness policy had an impact on student health during the first year of implementation?"

Committee Member Title	District A	District B	District C	District D
SNP Director	No answer	Acceptance of more fruits and vegetables	More support from education community and media	Change in eating habits at school and home
Parent	Change in vending practices and student eating habits	Increase in physical activity; healthier menu selections	Behavior changes and increased physical fitness	No answer
Teacher	Healthier choices in the cafeteria; positive feedback from parents and students	Positive actions to improve health; more participation in school meals	More opportunities to participate in healthy activities	Students making better choices; less junk food; incorporating wellness into teaching
Principal	Students selecting more healthful food during lunch	Students eating healthful foods and participating in more activities	Students choosing healthful snacks, improved weight	No opinion
Superintendent	No answer	No answer	Students will make healthier food choices	Healthier choices

To further assess the anticipated impact of a school wellness policy, committee members were asked to rate on a five point scale of 1 (*none*) to 5 (*large*) what impact they believed the wellness policy would have on student health during the first and fifth year of implementation. Table 11 summarizes the results. Eleven of the fifteen committee members believed there would be some improvement by the first year that would increase by the fifth year. The parent representative in District C thought the impact would remain about the same for both years. Several committee members declined to comment. In District C, the superintendent did not answer the question and in District D both the parent and principal declined to answer. In District A, the pilot site, committee members were not given an opportunity to rate the impact for the 5th year.

Table 11

Projected Impact of Wellness Policy on Student Health in the First and Fifth Year of Implementation

Committee Member Title	District A		District B		District C		District D	
	1 st year	5 th year ^a	1 st year	5 th year	1 st year	5 th year	1 st year	5 th year
SNP Director	3	na	3	5	3	4	3	4
Parent	3	na	1	3	3	3	No answer	No answer
Teacher	3	na	1	3	2	4	2	4
Principal	3	na	3	4	2	4	3	No answer
Superintendent	2	na	4	5	3	No answer	3	5

^aDistrict A served as the pilot study; the question relating to the 5th year impact was added as a result of the analysis of pilot questions.

In order to ascertain how committee members felt about the school district’s readiness to implement the wellness policy, committee members participating in the case study were asked, “How prepared is your school district to implement the local school wellness policy?” As shown in Table 12, the majority of respondents felt the district was very prepared.

Table 12

Perception of Preparedness to Implement a Wellness Policy

Committee Member Title	District A	District B	District C	District D
SNP Director	Very prepared	Prepared	Very prepared	Very prepared
Parent	Very prepared	Unsure	Very prepared	No opinion
Teacher	Very prepared	Very prepared	No opinion	Very prepared
Principal	Very prepared	Very prepared	Staff will be prepared	Very prepared
Superintendent	Very prepared	Very prepared	Very prepared	Very prepared

Goal Assessment Survey

Five wellness committee members in each of the case study districts were asked to rate the wellness goals listed in their school district’s wellness policy on a scale of 1 to 5 with 5 being the highest rating and 1 being the lowest rating. Participants were asked to answer five questions about each goal related to importance, cost, time, commitment, and feasibility:

- How *important* is this goal to the overall school wellness policy?
- How *expensive* will it be to implement this goal compared to the overall budget for wellness?
- How much *time* and effort will it take to implement this goal?

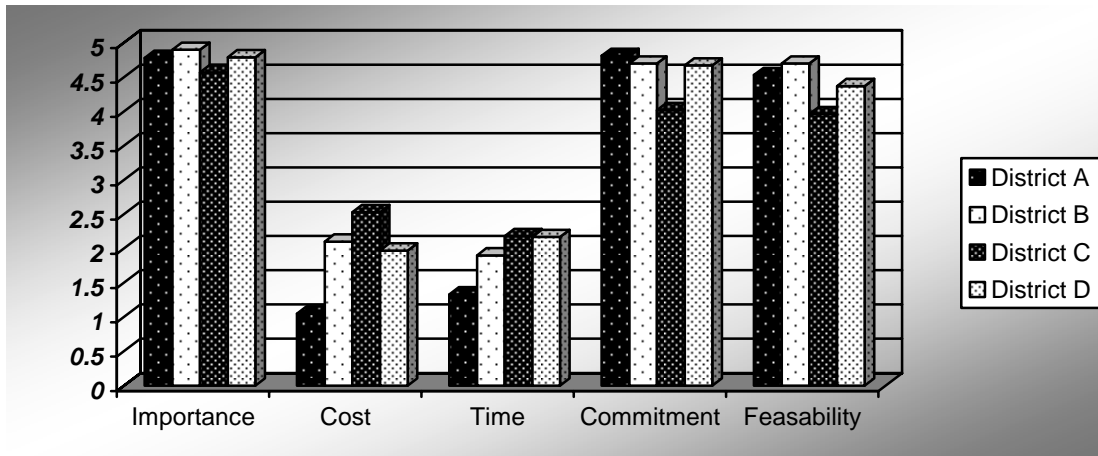
- How *committed* are you towards this goal?
- How *feasible* will it be to implement this goal?

The wellness goal assessment looked at four main sections to reflect the required components of a local school wellness policy: nutrition, nutrition education, physical activity, and other school-based activities. The reader is reminded that the majority of respondents reported they were in the drafting stage of policy development at the time of the research study; therefore, their assessment of the goals could be subject to change after the policy was finalized and implemented.

As shown in Figure 1, wellness committee respondents indicated they believed that all the written nutrition goals in their respective districts were important to the overall wellness policy. They thought the goals were feasible and were committed to working toward goal implementation. District A committee members indicated they did not believe the goals would be expensive or time consuming to implement. District C has the highest rating (2.5) related to cost for implementation.

Figure 1.

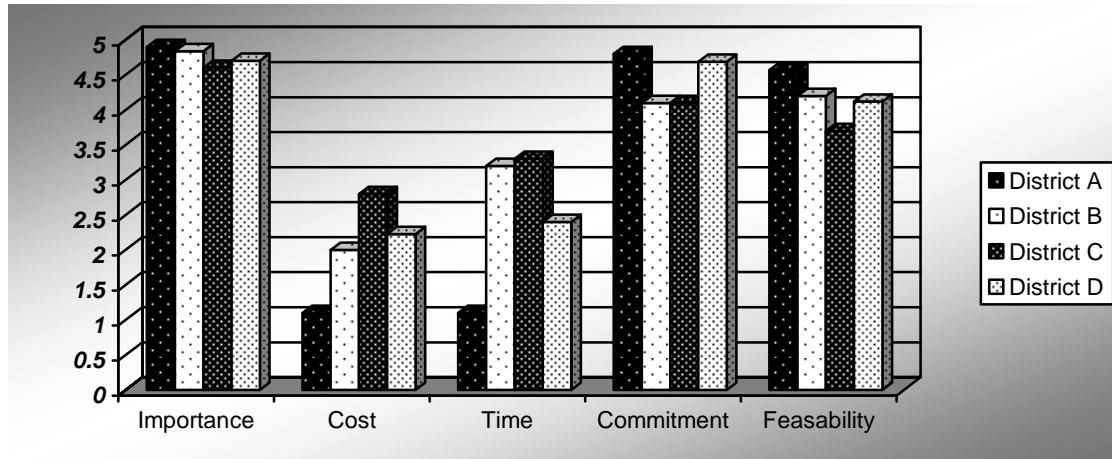
Wellness Goals: Nutrition (n=20)



Respondents had similar beliefs about the importance, commitment, and feasibility of nutrition education goals (see Figure 2). Respondents rated the amount of time to implement the nutrition education goals at a slightly higher level than nutrition goals. As indicated by the rating (1), District A had the lowest concern about cost and time involved for implementing nutrition education goals. Districts B and C rated time (3) as a higher concern for implementation than Districts A and D.

Figure 2.

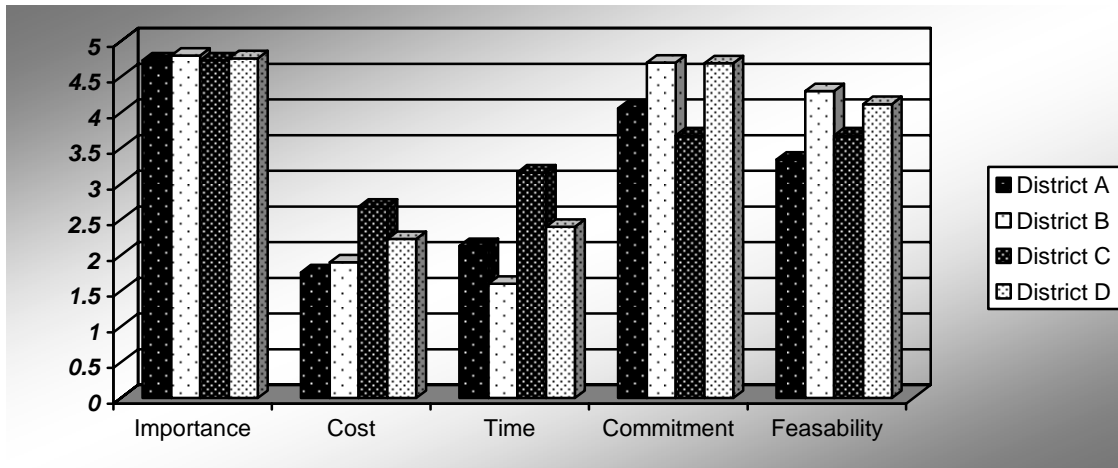
Wellness Goals: Nutrition Education (n=20)



Physical activity goals were equally important to the wellness committee members as the nutrition and nutrition education goals. Members were also committed to implementation. As shown in Figure 3, however, feasibility received a rating of 4 or less in Districts A, C, and D. District B rated feasibility slightly higher than 4. This rating may indicate that some committee members had slight concerns about the feasibility of wellness goals related to physical activity. It is possible that the concerns were related to the lack of facilities. District C committee members seemed to believe that both cost (2.5) and time (3) would be somewhat of a factor when implementing the physical activity goals.

Figure 3.

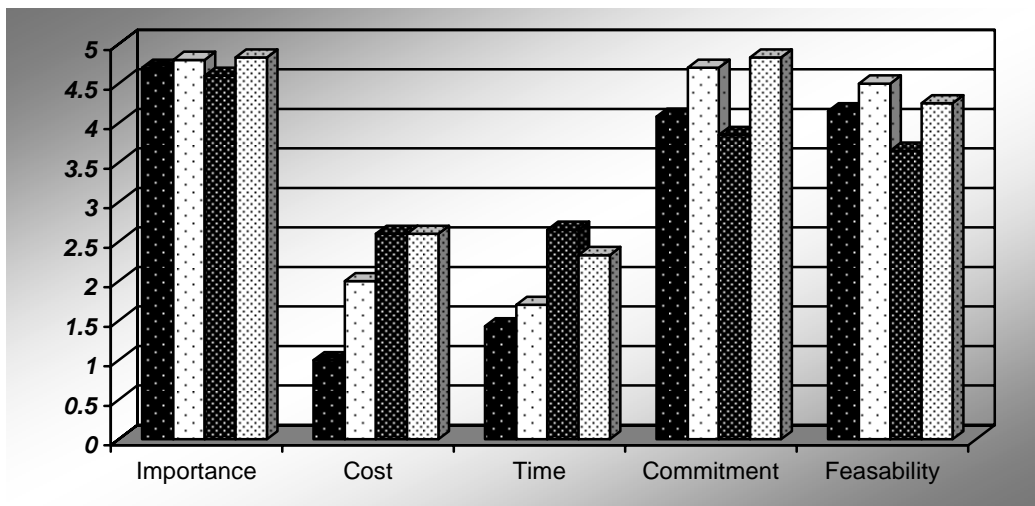
Wellness Goals: Physical Activity (n=20)



Other school-based activities are defined as activities designed to create a school environment that is conducive to healthy eating and being physically active. As shown in Figure 4, the assessment of goals for other school-based activities rated similar to the goals for nutrition, nutrition education, and physical activities in importance, commitment, and feasibility among committee members that responded. Committee members in Districts C and D seemed to have a slightly higher concern for the cost and increased time required to implement school-based activities other than nutrition, nutrition education, and physical education.

Figure 4.

Wellness Goals: Other School-Based Activities (n=20)



CONCLUSIONS AND RECOMMENDATIONS

Research indicates that the diets of most U. S. children fail to meet national nutrition guidelines and that children continue to fall short of the recommended levels of physical activity. As a result, more children are overweight today than ever before. The health risks associated with obesity in children and youths pose a critical challenge for the nation.

Results from this case study indicate that schools have the opportunity to become one of the nation's most effective resources in the fight against obesity by creating an environment that is favorable to healthful eating and increased physical activity. All of the school districts in this study were successful in their endeavor to solicit support for a local wellness plan that included setting goals for nutrition, nutrition education, physical activity, and oversight of other school-based activities that promoted wellness.

Each of the school districts followed strategies that included the following:

- Assessing the school's current health policies;
- Creating a committee to develop a school district wellness policy;
- Addressing nutrition requirements and physical activity;
- Recognizing the importance of teamwork in developing and implementing a wellness policy in a school environment; and
- Designating a person to ensure the implementation and evaluation of the school wellness policy.

Because this research used a case study methodology, the selection and number of cases limit the representation and may not characterize the general scope of the study group. The possibility also exists for data to be omitted when comparing activities across cases. Some data may be incomplete or may have changed because schools were in the early stages of policy

development during the study. As newer resources and processes for development of wellness policies become available it is reasonable to expect the district to modify both policy and procedures.

This study confirms that schools can play an important role in a national effort to prevent childhood obesity by promoting good nutrition, physical activity, and healthy lifestyles. School districts around the nation should embrace efforts to develop and refine local wellness policies to address the well-being of children by implementing nutrition goals and increasing physical activities. It is important for schools to devise a plan to maintain, monitor, and evaluate their local wellness policy on a continuous basis. To ensure the health of future generations, school-based wellness policies must become a national priority.

Findings from this study can be used by school districts to improve existing wellness policies and identify key factors for successful implementation. Wellness committee members can compare resources used by school districts in the study to those used in their respective districts to help maintain and monitor the evaluation component of the wellness policy initiative.

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