

**Investigation of School Professionals' and Parents'
Attitudes Toward School Wellness Implementation
in Elementary Schools**



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National Food Service Management Institute The University of Mississippi

Building the Future Through Child Nutrition

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PURPOSE

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 Technology Transfer 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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TABLE OF CONTENTS

EXECUTIVE SUMMARY	8
INTRODUCTION	14
Research Objectives	
METHOD	20
Research Plan	
Phase I	
Focus Group Interviews	
Phase II	
Survey Development	
Pilot Study	
Survey Distribution	
Informed Consent	
Data Analysis	
RESULTS AND DISCUSSION	24
Focus Group Interviews	
Survey	
Survey Development	
Demographics	
Section I: Goals	
Section II: Roles and Responsibilities	
Section III: Implementation Issues	
Section IV: Healthy Elementary School Environment	
Section V: Training and Resources Needed to Aid in Attaining School Wellness	
Section VI: Analysis of Results by Group	
CONCLUSIONS AND RECOMMENDATIONS	49
Limitations to the Research Study	
Research Study Conclusions	
Education and Training Implications	
Research Implications	

REFERENCES	52
APPENDIX A: Focus Group Questions	55
APPENDIX B: Survey Evaluation Form.....	58
APPENDIX C: Scannable Survey	60
APPENDIX D: Cover Letters.....	66

LIST OF TABLES

Table 1: Focus Group Questions with Response Themes and Frequency of Comments in Descending Order.....	27
Table 2: Demographic Characteristics of Respondents	32
Table 3: Level of Importance and Attainment of Implementing School Wellness Goals	37
Table 4: Level of Importance and Involvement Related to Roles and Responsibilities of Implementing a School Wellness Policy	39
Table 5: Level of Agreement on Benefits and Barriers Related to Implementation a School Wellness Policy	41
Table 6: Level of Agreement on Descriptions Associated with a Healthy School Environment.....	44
Table 7: Level of Agreement on Training and Resources Needed to Implement the Wellness Policy.....	46

**INVESTIGATION OF SCHOOL PROFESSIONALS' AND PARENTS'
ATTITUDES TOWARD WELLNESS POLICY IMPLEMENTATION
IN ELEMENTARY SCHOOLS**

EXECUTIVE SUMMARY

Ninety-five percent of American children and adolescents spend the majority of their waking hours enrolled in school (Wechsler, McKenna, Lee, & Dietz, 2004). During this time, schools have the potential to instill healthy life-long habits within children and adolescents through nutrition education, healthy school meals, snacks and beverages, and opportunities for physical education and activity. Research indicates a relationship between nutritional adequacy and physical activity in children and adolescents yields a decrease in absenteeism and an increase in academic performance (Kleinman et al., 2002; Jarrett et al., 1998). It can be concluded that a healthy school environment with strong administrative leadership can impact the obesity trends among children and adolescents.

In an attempt to address the ever increasing obesity epidemic in the United States, Congress enacted the Child Nutrition and Women, Infants and Children (WIC) Reauthorization Act of 2004, mandating that all local education agencies (LEAs) participating in the National School Lunch Program establish a local wellness policy by July 2006 (Pub. L. No. 108-265, § 204). The law specifies that wellness policy components are to include goals for nutrition education, physical activity, and extra-curricular school-related activities to promote student wellness. Additionally, all foods served and sold on campus during the school day must follow nutrition guidelines that promote student health with the intent of reducing childhood obesity. Schools must ensure that reimbursable school meals are in compliance with the Child Nutrition

Act and Richard B. Russell National School Lunch Act. Districts need to establish procedures to measure implementation of the policy and appoint an individual to oversee the implementation of and adherence to the policy. Finally, each district is required to have a committee consisting of parents, students, school foodservice personnel, the school board, school administrators, and the public to develop and implement a school wellness policy. However, funding was not allocated to help LEAs implement these goals.

The mandate for a local wellness policy (LWP) presents a unique opportunity for schools to form partnerships with health professionals, community organizations, food vendors, and parents to promote not only child and adolescent health, but also a healthy community. Principals, district administrators, and others having direct oversight with the planning, implementation, and assessment of a LWP are at the helm to lead the way to a healthier school community and environment, as their influence on nutrition and vending policies can impact the overall environment of health in each school. While principals, teachers, and parents can reinforce the nutrition curriculum by modeling and incorporating healthy behaviors into their daily activities, their efforts will be ineffective without appropriate training and education to implement healthy practices and policies (Shahid, 2003). The focus of a LWP provides school nutrition directors (SNDs) and others engaged in planning and implementation numerous opportunities to model and promote a wellness environment in the school setting. Therefore, the purpose of this research was to identify attitudes of SNDs, principals, teachers, and parents regarding a LWP and barriers related to implementation of a LWP. Researchers also explored their views toward school meals, healthy food options, dining environment, and nutrition education in the school setting.

Phase I of the research utilized focus groups conducted with four school districts across the United States. Teachers, parents, principals, SNDs, and community professionals participated in the focus groups. Eight questions were used to obtain information regarding attitudes and perceived benefits and barriers related to implementation of the LWP. The information gathered from the four focus group sessions was used to develop a quantitative questionnaire for Phase II of the research. The questionnaire was mailed to 700 SNDs representing the seven USDA regions. Each packet contained a total of four identical surveys, one each for the SND, principal, teacher, and parent in the school district, for a total of 2800 questionnaires distributed nationwide. Five sections with Likert-type responses were included in the questionnaire, as well as one demographics section. The six sections are listed below:

- Section I: Goals
- Section II: Roles and Responsibilities
- Section III: Implementation Issues
- Section IV: Healthy Elementary School Environment
- Section V: Training and Resources Needed to Aid in Attaining School Wellness
- Section VI: Demographics

A total of 575 completed questionnaires were returned (20.5%). The groups of participants were almost equally divided, with principals representing the majority of the respondents (30.4%) and parents representing the smallest group (20%). More than half (57.4%) of those returning the survey had an active role in implementation of the LWP. Twenty-four percent stated that the policy was fully implemented, while 37% indicated the policy was partially implemented. However, over 28% were not sure of the level of implementation of the LWP.

“School meals meet USDA requirements” was ranked as the most important goal when implementing a LWP. “Physical education is included in the curriculum” was ranked second in importance, followed by “physical activity is part of the elementary school day.” The goal having the lowest importance ranking was “nutrition education is part of the elementary school day.”

The goal with the highest mean score for level of attainment was “School meals meet USDA requirements.” “Physical education is included in the curriculum” and “physical activity is part of the elementary school day” were ranked as second and third attainment level goals, respectively.

It is interesting to note that the importance goals ranking in the top four are also ranked in the top four for the attainment level. Therefore, these findings indicate an attainment of what respondents perceived as important. On the other hand, “nutrition education is part of the elementary school day” ranked last in importance and next to last in level of attainment, indicating that perhaps it is ranked low in importance because of the perception that this goal lacks attainability at the time of the study. “Foods sold on campus include healthy choices” ranked as the least attainable goal, but ranked as important to very important to implementing a LWP in their elementary school.

Respondents ranked “encourage students to eat healthy,” “promote physical activity,” and “increase physical activity” as the top three importance roles or responsibilities to implementing a LWP. Whereas the highest level of involvement was “create awareness of school wellness,” all other survey statements measuring respondents’ level of involvement ranked somewhat involved to not involved.

It was most strongly agreed that the LWP would “improve physical fitness among elementary students.” This benefit was followed by “promote life-long eating habits” and “increase intake of healthy foods.” Regarding potential barriers, respondents most strongly agreed they “need the support of school administration.” This barrier was closely followed by “need the support of teachers” to implement the policy. “Is safe and secure” and “a clean and sanitary cafeteria” were considered as the primary components of a healthy school environment for elementary children. Survey respondents most strongly agreed that they needed training on “strategies to implement a school wellness policy or program.” Having “a nurse in every school” and “physical education instructors” were ranked as the most needed resources for implementing a LWP.

The study took place approximately eight months after the required implementation of the LWP. Sixty-one percent of study respondents reported at least partial implementation of the wellness policy. Only 1.6% reported not having a policy written. Overall, it appeared that most of the policy requirements were being implemented. Findings from this study indicated that SNDs, principals, teachers, and parents considered school wellness in the elementary school setting important to the overall health of children. They viewed their roles as important in most aspects of a school wellness policy from encouraging students to eat healthy to advocating for change in the school community. Additionally, respondents reported their involvement in most of these areas to some degree. Respondents agreed that a healthy school environment should be safe, secure, clean, sanitary, and aesthetically pleasing. Also, they agreed that a healthy school environment should include healthy food choices, encourage physical activity, and promote positive interactions between school staff and students. Support from administration, teachers, and parents was viewed as a necessary component to achieving success in implementing a local

wellness policy. Without a supportive team to implement, manage, and evaluate the LWP, the potential for excellence would be challenging. Adequate training and creditable resources serve as best practices for laying a foundation for achieving the LWP goals and fostering the need for an LWP team.

INTRODUCTION

Obesity rates in American youth continue to rise as excessive intake of concentrated sweets and beverages, fast foods, and lack of physical activity remain as the normal eating patterns and activity behaviors in this population (St-Onge, Keller, & Heymsfield, 2003). The most recent data from the 2003-2004 National Health and Nutrition Examination Survey (NHANES) showed a significant increase in prevalence (from 13.9% to 17.1%) of obesity (defined as age- and sex-specific body mass index [BMI] > 95th percentile) among children ages 2 to 5 years old, 6 to 11 years old, and 12 to 19 years old as compared with the 1999-2000 NHANES data (Ogden, et al., 2006). Research has indicated that obesity beginning in childhood will most likely track through adolescence into young adulthood (Freedman, Khan, Dietz, Srinivasan, & Berenson, 2001). 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 and government agencies (US Department of Health and Human Services [DHHS], 2001).

Ninety-five percent of American children and adolescents are enrolled in school, where they spend the majority of their waking hours (Wechsler, McKenna, Lee, & Dietz, 2004). Many children consume two meals at school, and some may consume all of their meals at school. Outside of the family, schools have the most contact and, potentially, the most influence on children in the first 18 years of life. Through nutrition education, healthy school meals, snacks and beverages, and opportunities for physical education and activity, schools have the opportunity to instill healthy life-long habits in children and adolescents. Furthermore, research indicates a relationship between nutritional adequacy and physical activity in children and adolescents resulting in less absenteeism and increased academic performance (Kleinman et al.,

2002; Jarrett et al., 1998). A healthy school environment with strong administrative leadership can impact the obesity trends among children and adolescents (School Nutrition Association [SNA], 2006).

Obesity not only threatens the future health of youth, but it may affect their present learning capacity, productivity and academic success (School Nutrition Association [SNA], 2005). Research indicates school meals contribute to improved nutrient intake and academic achievement (Kleinman et al., 2002; Murphy et al., 1998). However, NSLP participation is inhibited by the availability of foods and beverages sold outside of the program, challenging the program's effectiveness (Probart, McDonnell, Hartman, Weirich, & Bailey-Davis, 2006). Additionally, parents' negative perceptions of school meals may also hinder participation (Lambert, Conklin, & Meyer, 2001). Nevertheless, healthy school environments encompass much more than just school meals. A combination of healthy food choices, nutrition education, physical activity, and a team approach, is vital to the success and well-being of students in the school environment.

Congress recognized the importance of the aforementioned coordinated effect and enacted the Child Nutrition and Women, Infants and Children (WIC) Reauthorization Act of 2004, mandating that all local education agencies (LEAs) participating in the National School Lunch Program establish a local wellness policy (LWP) by July 2006 (Pub. L. No. 108-265, § 204). The law specifies that wellness policy components are to include goals for nutrition education, physical activity, and extra-curricular school-related activities promoting student wellness. Additionally, schools must ensure that reimbursable school meals are in compliance with the Child Nutrition Act and Richard B. Russell National School Lunch Act, all foods served and sold on campus during the school day must follow nutrition guidelines established by the

LEA that promote student health with the intent of reducing childhood obesity. Districts need to establish procedures to measure implementation of the policy and appoint an individual to oversee the implementation of and adherence to the policy. Finally, each district is required to have a committee consisting of parents, students, school foodservice personnel, the school board, school administrators, and the public to develop and implement a school wellness policy.

The mandate for a LWP presents a unique opportunity for schools to form partnerships with health professionals, community organizations, food vendors, and parents to promote not only child and adolescent health, but also a healthy school environment. Principals, district administrators, and others who directly oversee the planning, implementation, and assessment of a LWP are the gatekeepers to a healthier school environment. Their influence on nutrition and vending policies can impact the overall environment of health in each school (Shahid, 2003). The focus of a LWP provides schools numerous opportunities to model healthy behaviors, promoting a healthy school environment in the elementary school setting. While principals, teachers, school nutrition professionals, and parents can reinforce the nutrition curriculum by modeling and incorporating healthy behaviors into their daily activities, their efforts will be ineffective without appropriate training and education to implement healthy practices and policies (Shahid, 2003).

Qualitative studies have reported that principals' primary focus is on the No Child Left Behind Act of 2001, which makes schools accountable for meeting statewide objectives and criteria for math and reading scores (Shahid, 2003). However, research has indicated that healthy behaviors are essential to the learning environment and have the potential to improve test scores (Kleinman et al., 2002). Without the leadership from principals and administrators, instilling wellness and the associated practices into the student body could be a difficult task. The

following study assessed the knowledge, attitudes, and beliefs of middle school principals' role in the promotion of nutritional health in the school setting.

Shahid (2003) used both quantitative and qualitative methods to answer the following research questions concerning the role of principals in promoting nutritional health:

- What is their role and how do they promote healthy eating practices on campuses?
- Do they feel they have adequate knowledge regarding nutrition education to be incorporated into the curriculum?
- How are they involved in the decisions to purchase and sell competitive foods and beverages on campuses?
- How are they influenced to make these decisions?

Forty middle school principals in Kern County, California were mailed surveys to assess their knowledge, attitudes and leadership role regarding nutrition practices among students. Eight of the 40 principals were selected for in-depth interviews for qualitative data collection. Results from surveys and interviews revealed that principals perceived their leadership role regarding the promotion of nutritional health as an "overseer." Principals desired to be involved in the development of nutritional policies, yet had no clear understanding of the effects on nutrition and learning.

Integrating nutrition education into the curriculum may be problematic due to the principals' reports of no formal background in nutrition; all principals, however, reported that they would welcome the opportunity for continued education in this area (Shahid, 2003). On one hand, the data revealed that principals support a healthy environment, while, on the other hand, principals allowed the sale of unhealthy food choices on campus. With regard to decision-making processes of purchasing and selling competitive foods, the data are somewhat vague

conveying that principals are just doing what other schools are doing (i.e. following the “status-quo” by selling unhealthy competitive foods). However, motivations for or against purchasing and selling competitive foods were very clear. Principals who allowed competitive foods reported motivating factors such as revenue, kids will eat it anyway, other schools have competitive foods, and competitive foods do not affect academic performance. Principals who disallowed competitive foods reported that the practice of selling competitive foods was unnecessary, unsupportive of learning, created trash problems, and/or the district prohibited it. Shahid notes that principals perceived the promotion of nutritional health as a *losing battle* without the reinforcement and support from the district, parents, and local community.

Perhaps it is this losing battle concept that Rainville and colleagues (2003) encountered when they found that 47% of school professionals felt that a healthy school nutrition environment was not a priority. Additionally, and in support of Shahid's (2003) findings, Molaison and Carr (2006) found similar results when 562 principals reported loss of vending revenue, lack of funding to implement a wellness program, changing to healthier food options in the cafeteria, and the lack of parental and school administration support of a wellness program as barriers to promoting a healthy school environment. If principals and educators believe that there is no correlation between learning and sound nutrition, maybe it is because they themselves have had inadequate nutrition training (Shahid, 2003). Principals have the primary role as leaders to promote a healthy school environment where student learning and achievement can take place by becoming actively involved in setting nutrition policies for competitive foods sold on campus (Meyer, Conklin, & Turnage, 2002). While principals, teachers, and parents can reinforce the nutrition curriculum by modeling and incorporating healthy behaviors into their daily activities,

their efforts will be ineffective without appropriate training and education to implement healthy practices and policies (Shahid, 2003).

Research Objectives

The objectives of this research were as follows:

- Identify school nutrition directors', principals', teachers', and parents' attitudes toward school wellness in the elementary school setting;
- Determine the importance of school meals, healthy food options, pleasant dining environment and nutrition education in the elementary school setting;
- Identify barriers related to implementation of a school wellness policy; and
- Provide recommendations to successfully implement a LWP in the elementary school setting.

METHOD

Research Plan

The purpose of this research was to investigate attitudes of school nutrition directors (SND), principals, teachers, and parents regarding a LWP and barriers related to implementation of a LWP in elementary school settings. Researchers also explored their views toward school meals, healthy food options, dining environment, and nutrition education in the elementary school setting. A concept paper was developed outlining the purpose, research objectives, methodology, project timetable, and outcomes of the study. In order to identify attitudes toward the wellness policy and perception of a healthy school environment, focus groups were conducted. The qualitative information gained from the focus groups were used to develop a survey that encompassed all of the research objectives. The survey was pilot tested to evaluate the content of the instrument. After revisions were made, the final survey was mailed to a national sample.

Phase I

Focus Group Interviews

Focus groups were conducted with four school districts, each representing a different USDA region located in Pennsylvania ($n = 8$), Idaho ($n = 13$), Arkansas ($n = 9$), and Mississippi ($n = 9$) to explore attitudes toward the LWP. The sample included a combination of teachers, parents, principals, SNDs, and community professionals. Focus group discussion questions consisted of eight questions. A copy of the questions used in the focus group interviews is included in Appendix A.

All focus groups were tape recorded. In addition, the focus group moderator took notes during the focus group while another researcher recorded the responses to the questions in a

bullet point format. The audio recordings and notes taken during the interviews were used in transcribing the focus group interviews, allowing for the identification of common themes within each set of responses. The information gathered during the focus group interviews was used to develop a quantitative survey instrument to identify attitudes toward school wellness, the importance of implementing a wellness policy, the barriers to implementation of a wellness policy, and the training and resources needed to implement a wellness policy.

Phase II

Survey Development

Based on the information gathered from the four focus group sessions, a quantitative survey was developed. Due to the small number of total respondents in the focus groups, each theme identified when analyzing the focus group data was included in the survey. In addition, two NFSMI researchers reviewed the themes and offered suggestions for additional questions aimed at answering the questions set forth by the research objectives identified in the concept paper. Wording and content of all questions were reviewed by NFSMI researchers prior to distribution of the pilot study. In addition to the content questions, demographic data were added to the survey. A separate section intended only for the SND was included at the end of the survey to assess certification status as well as wellness policy evaluation efforts.

Pilot Study

Due to the interest in the study expressed by focus group participants, it was decided that the SND hosting each of the focus groups would participate in the pilot study. Therefore, in order to pilot test the protocol for the final survey distribution, one set of four pilot surveys was mailed to the SND for each of the four school districts visited. Each SND was instructed to complete a survey and distribute the remaining three identical surveys to a principal, a parent, and a teacher,

representing study respondent groups. Also, the state agency directors representing the seven USDA regions and serving as a committee representing all state agency directors overseeing the National School Lunch Program, participated in the pilot study. In addition to completing the survey, participants were asked to complete an evaluation form to assess the clarity and readability of the survey and cover letters. A total 10 surveys and evaluations were distributed. A copy of the evaluation form is found in Appendix B. Only three pilot participants returned the completed survey and the evaluation form; therefore, the questionnaires were not analyzed for statistical validity, but were assessed for readability and clarity. Several comments were made regarding the wording of the pilot letter, and suggestions were made for additional questions that needed to be added to the survey. Changes were made to the formatting of survey and letter. The final version of the survey is found in Appendix C, with the cover letters (SND and study participants) found in Appendix D.

Survey Distribution

The final survey was mailed to 700 SNDs, representing the seven USDA regions. Each packet contained a total of four identical surveys, for a total of 2800 surveys being distributed nationwide. A separate cover letter was attached to the SND survey that outlined how the other three surveys were to be distributed to a principal, a parent, and a teacher. The first cover letter as well as the cover letter to the other participants outlined the purpose of the study, requested their participation, assured them of confidentiality of their responses, and provided researchers' contact information. No identifying codes were placed on the surveys, preserving the anonymity of all respondents. A postage-paid, self-addressed return envelope was included with each participant's survey. Participants were given approximately one month to return the completed survey.

Informed Consent

The protocol for Phase I and Phase II of the study were reviewed and approved by the Human Subjects Protection Review Committee (HSPRC) of The University of Southern Mississippi.

Data Analysis

Surveys were analyzed using the statistical package SPSS Version 12.0 for Windows. Descriptive statistics included means, standard deviations, and frequencies of total responses. One-way Analysis of Variance was used to evaluate the differences in responses based on degree of implementation of the wellness policy, group (principal, teacher, etc.), and level of participation in the wellness committee.

RESULTS AND DISCUSSION

Focus Group Interviews

The total number of times a theme/idea was mentioned in all of the focus groups combined is indicated in parentheses. Participants considered the most important component of a school wellness policy was the offering of healthy foods (9). Not only did participants believe that offering nutritious meals with variety was important to the success of a wellness policy, but participants revealed concerns regarding whether the students would like the healthy options. The second most common response to what was an important component of a school wellness policy was nutrition education (6). This component was not limited to the classroom, but included the community at large with an emphasis on the parents. Additional responses regarding important components of a school wellness policy included physical activity/education (5), curriculum issues (4), implementation readiness (3), and rewards and discipline issues (2).

Participants were asked what they thought their role was in implementing the policy. While several themes emerged regarding roles, the most frequently perceived role in implementing a wellness policy was as an educator (23). The role as educator once again ranged from the classroom to the parents and the community. Responses included education on current health issues, nutrition topics, and policy requirements. Monitor/enforcer (11) was the second most frequent response. Teachers, principals/administrators, and SNDs felt that it was their role to ensure that the policy guidelines are being met and that students are eating healthy foods. Role model (9) was the next most frequent response. Being a role model for students and parents in and out of the classroom was revealed throughout the focus group discussions. Additional roles perceived by participants in the implementation of the policy included encourager/motivator (6), advocator (5), and resource finder/investigator (3).

Because the wellness policy states that all foods served and sold on campus during the school day must follow nutrition guidelines, participants were asked how they defined the “school day.” While some responded with from arrival to departure (5), the most frequent response was that the school day is inclusive of extracurricular activities (14). Extracurricular activities were identified as after-school club meetings, evening sporting events, field trips, and any time under school care.

Participants were asked what they perceived to be the benefits and barriers to schools and students with the implementation of a wellness policy. The most frequent response, without a doubt, was that healthier students and school community (15) were benefits of implementing a wellness policy. Improved academic performance (6) and less illness and absenteeism (6) followed as the next most frequent responses regarding benefits. See Table 1 for additional benefits.

Time to implement (11) was the most frequent response as a barrier to the implementation of a wellness policy. The demand for teachers' time was considered a challenge that will be encountered in the classroom as they incorporate nutrition education into their lesson plans and classroom time; it was perceived as an added burden because of the emphasis placed on the No Child Left Behind program. Lack of support (9) (i.e. support from parents, teachers, administration, and community) was the next most frequent response as a barrier and lack of funding/revenue (6) followed, as principals feared that districts will lose revenue due to the restrictions placed on vending. Furthermore, the fact that the mandate is unfunded is viewed as a barrier to purchasing healthier options that tend to be more expensive, or to hire additional staff to implement the policy. Participants also felt that changing protocol (5) (i.e. concessions at

sporting events, vending contracts, and types of foods offered), and students not liking new foods offered (4) were barriers to the implementation of a wellness policy.

When participants were asked what they think makes a healthy school environment, the most frequent response was a school that was aesthetically pleasing and comfortable (9). Participants stated that bright lights and colors, healthy images portrayed, and an inviting cafeteria and playground were qualities that portrayed a healthy school environment. Healthy modeling and supporting the policy (8) followed as the next most frequent response regarding a healthy school environment. Display of physical activity (6), clean and sanitary (6), and positive attitudes and interaction (5) were further responses depicting the healthy school environment of participants.

Participants were asked what type of training is needed to implement a wellness policy. The most frequent response was nutrition education (6). Not only did participants need nutrition education materials (3) to teach students, but they themselves, needed education about nutrition so that they in turn could model and teach to students and parents. Participants also reported that training was needed for communication (4) (i.e. adult and student communication/modeling) and policy education (3) (i.e. training parents about the policy). See Table 1 for further results regarding training.

Since the wellness policy mandate is unfunded, when asked about needed resources, the most frequent response was funding (13). Funding was reported as a need for a variety of things including staff, equipment, healthy products, training, marketing, etc. Information and education materials (8) followed as the next most frequent response to needed resources. Additional resources included an enforcer/overseer (8) (i.e. someone designated to ensure that the policy is

being implemented), in-service trainer (3), and staff (2) (e.g. physical education teachers). Table 1 summarizes responses of focus group participants from questions asked during the sessions:

Table 1

*Focus Group Questions with Response Themes and Frequency of Comments
in Descending Order*

Question	Response themes	Frequency of Comments
1. Given the list of policy requirements, what do you feel are going to be the major components of a school wellness policy (SWP)?	Offering Healthy Foods	9
	Nutrition Education	6
	Physical Activity/Education	5
	Curriculum Issues	4
	Implementation Readiness	3
	Rewards and Discipline Issues	2
2. What do you think your role is in implementing this policy? It impacts everyone, so what do you see your role as?	Educator	23
	Monitor/Enforcer	11
	Role Model	9
	Encourager/Motivator	6
	Advocator	5
	Resource Finder/Investigator	3

(table continues)

Table 1 (*continued*)

*Focus Group Questions with Response Themes and Frequency of Comments
in Descending Order*

Question	Response Theme	Frequency of Comments
3. What do you define as the “school day”?	Inclusive of Extracurricular Activities	14
	Arrival to Departure	5
	Any time Under School Care	3
4. What do you think the benefits are to schools and children with the implementation of the SWP?	Healthier Students and School Community	15
	Improved Academic Performance	6
	Less Illness and Absenteeism	6
	Improved Behavior	3
	Improved Physical Performance	1
5. What are the challenges that you will face? In the classroom, where do you see challenges?	Time to Implement	11
	Lack of Support	9
	Lack of Funding/Revenue	6
	Changing Protocol	5
	Students Not Liking New Foods Offered	4

(table continues)

Table 1 (*continued*)

*Focus Group Questions with Response Themes and Frequency of Comments
in Descending Order*

Question	Response Theme	Frequency of Comments
6. What do you think makes a healthy school environment?	Aesthetically Pleasing and Comfortable	9
	Healthy Modeling and Supporting the Policy	8
	Display of Physical Activity	6
	Clean and Sanitary	6
	Positive Attitudes and Interaction	5
7. What type of training is needed to implement this policy?	Nutrition Education	6
	Communication	4
	Policy Education	3
	Nutrition Education Materials	3
	Policy Implementation	2
	Foodservice	2
	No Resources Needed	2

(table continues)

Table 1 (*continued*)

*Focus Group Questions with Response Themes and Frequency of Comments
in Descending Order*

Question	Response Theme	Frequency of Comments
8. In your opinion, what resources do you need to implement a SWP in elementary schools?	Funding	13
	Information and Education Materials	8
	Enforcer/Overseer	4
	In-Service Trainer	3
	Staff	2

Survey

Survey Development

After analyzing the focus group data, the final survey was developed and included a total of six sections. The first section related to the goals of the wellness policy. In addition to asking participants to rate the perceived level of importance, they also were asked to assess the level to which each of the goals had been attained in their elementary school. Section II focused on the respondents' roles and responsibilities relating to implementation of the policy. These questions also were dual scaled, asking for level of importance as well as the level of involvement. Issues relating to implementation were assessed in the third section, while respondents were asked to evaluate those components that are considered to be part of a healthy school environment in Section IV. Training and resources needed were assessed in Section V. The last section focused on program and personal characteristics of the respondents. In addition to demographic

information, questions were used to gain knowledge on the definition of a school day, level of participation in the wellness policy, funding sought to support the wellness policy, methods to assess the effectiveness of implementation of the policy, and progress in implementing the wellness policy.

Demographics

A total of 2800 questionnaires were distributed to principals, teachers, parents, and SNDs throughout the United States. Of those that were mailed and distributed, 575 were returned, for a response rate of 20.5%. The groups of respondents were almost equally divided, with principals representing the majority of the respondents (30.4%) and parents representing the smallest group (20%). The southeast (AL, FL, GA, KY, MS, NC, SC, and TN) was the region with the largest number of respondents (19.8%). More than half (57.5%) of those returning the survey had an active role in implementation of the wellness policy. However, nearly one-fourth (22.3%) had never heard of the wellness committee. Twenty-four percent stated that the policy was fully implemented, while 37% indicated the policy was partially implemented. However, 28.5% were not sure of the level of implementation of the policy. Only 14.3% of those with knowledge of funding sought, actually pursued gaining funds to support implementation of the wellness policy.

As part of the wellness policy, it is required that all foods served during the school day meet nutrition guidelines selected by the LEA. Therefore, this question was included in the survey to determine the perception of a "school day." The majority of the respondents (47.4%) defined the school day as "anytime under the care or responsibility of the school including campus activities and field trips." All other demographic information is summarized in Table 2.

Table 2

Demographic Characteristics of Respondents

Characteristic	Frequency ^a	%
Definition of the School Day		
Any time children are under the responsibility of the school	261	47.7
Arrival at school until departure from school	139	25.2
When the bell rings in the morning until completion of extracurricular activities	62	11.3
When the bell rings in the morning until the last bell	58	10.5
Any activity that takes place on the school campus	31	5.6
Job Title		
School Nutrition Director	167	30.4
Principal/Assistant Principal	142	25.8
Teacher	131	23.8
Parent	110	20.0
Level of Participation on the Local Wellness Policy Committee		
Served as a committee member	179	33.3
Helped in writing the wellness policy	130	24.2
Did not know there was a committee	120	22.3
Heard of the committee, but did not participate	109	20.3

^a Total *n* varies based on responses for each question

(table continues)

Table 2 (continued)

Demographic Characteristics of Respondents

Characteristic	Frequency ^a	%
Funding to Support the Local Wellness Policy		
Not Sure	340	60.2
No	144	25.2
Yes	81	14.3
Sources Where Funding was Sought		
School District	60	10.4
State Agency	34	5.9
Federal Child Nutrition Programs	36	6.3
Private Foundations	28	4.9
Community Organization	21	3.7
Sources Where Funding was Received		
School District	42	7.3
Federal Child Nutrition Programs	32	5.6
State Agency	27	4.7
Private Foundations	18	3.1
Community Organization	17	3.0

^a Total *n* varies based on responses for each question

(table continues)

Table 2 (continued)

Demographic Characteristics of Respondents

Characteristic	Frequency ^a	%
Methods to Evaluate the Effectiveness of the Local Wellness Policy		
Not sure	316	55.0
Discuss the policy at PTO and/or staff meetings	172	29.9
Survey teachers, students, and/or parents	125	21.7
Send home comment cards	37	6.4
No plans to assess the implementation of the policy	43	7.5
Utilize an outside source to assess the policy	12	2.1
Level of Implementation of the Local Wellness Policy		
Partially implemented	209	37.0
Not sure	161	28.5
Fully implemented	137	24.2
Implementation has not begun	14	2.5
Implementation is in the planning stages	35	6.2
Policy has not been written	9	1.6
School Nutrition Directors Certification Status		
State Department of Education Certified	101	17.6
Not certified	73	12.7
School Nutrition Association Certified	61	10.6
SNS credentialed	24	4.2

^a Total *n* varies based on responses for each question

(table continues)

Table 2 (continued)

Demographic Characteristics of Respondents

Characteristic	Frequency ^a	%
School Nutrition Directors Certification Status		
Registered Dietitian	18	3.1
Licensed Dietitian/Nutritionist	10	1.7

^a Total *n* varies based on responses for each question

It is important to note the number of individuals who responded, “I am not sure” to several of the questions in the demographics section. It is assumed that the parents returning the survey were more likely to check this as an option for certain questions, since they would have limited knowledge of the policies and procedures implemented by the school as well as limited knowledge if funding was sought to assist in the implementation of the wellness policy. Therefore, caution must be taken in interpreting some of the results where a “not sure” option was allowed as a response.

Section I: Goals

Means and standard deviations were used to describe the level of importance, attainment, involvement, or agreement for each of the responses listed under each section. As part of the first section of the survey, nine statements regarding school wellness goals were listed. Participants were asked to rank the level of importance of each of these goals, with 4 being the highest rating of importance. “School meals meet USDA requirements” was ranked as the most important goal when implementing a LWP (3.84 ± .41). “Physical education is included in the curriculum” was ranked second in importance (3.82 ± .44), followed by “physical activity is part of the elementary

school day" ($3.81 \pm .47$). The goal having the lowest ranking was "nutrition education is part of the elementary school day" ($3.23 \pm .77$). However, it should be noted that all mean values were above 3.0, indicating that all nine goals were seen as important, at the minimum.

When the same nine goals were used to assess attainment of the wellness policy, "not applicable" was added as an option, assuming that some of the respondents would not know the level of attainment. Twenty-three percent of the respondents marked not applicable, and these data were dropped from the calculated mean score. The goal ranked with the highest level of attainment was "school meals meet USDA requirements" ($3.83 \pm .46$). "Physical education is included in the curriculum" ($3.76 \pm .53$) and "physical activity is part of the elementary school day" ($3.69 \pm .59$) were ranked as second and third attainment level goals, respectively.

It is interesting to note that the importance goals ranking in the top four are also ranked in the top four for the attainment level. Therefore, these findings indicate an attainment of what respondents perceived as important. On the other hand, "nutrition education is part of the elementary school day ranked last in importance" ($3.23 \pm .77$) and next to last in level of attainment ($3.00 \pm .77$), indicating that perhaps it is ranked low in importance because of the perception that this goal lacks attainability at the time of the study.

"Foods sold on campus include healthy choices" was ranked as the least attainable goal (2.88 ± 1.19), but ranked as important to very important ($3.52 \pm .81$). However, this finding should be interpreted with some caution. Nearly 25% ($n=122$) of the respondents indicated that this question was not applicable. Given the fact that many elementary schools do not allow vending, it is difficult to discern if the results are the product of vending being disallowed in the school. All other data relating to importance and attainment of wellness policy goals are summarized in Table 3.

Table 3

Level of Importance and Attainment of Implementing School Wellness Goals

Section I Survey Statements	Total <i>n</i>	Importance ^{ab} Mean \pm SD	Total <i>n</i>	Attainment ^c Mean \pm SD
School meals meet USDA requirements	558	3.84 \pm .41	521	3.83 \pm .46
Physical education is included in the curriculum	560	3.82 \pm .44	536	3.76 \pm .53
Physical activity is part of the elementary school day	555	3.81 \pm .47	527	3.69 \pm .59
Healthy menu items are available for children to select	554	3.77 \pm .48	531	3.49 \pm .82
Foods sold on campus include healthy choices	544	3.52 \pm .81	531	2.88 \pm 1.19
Nutrition education is included in the curriculum	560	3.48 \pm .68	527	3.16 \pm .74
Additional wellness activities are planned throughout the year	558	3.34 \pm .70	528	3.06 \pm .77
A designee oversee implementation of the wellness policy	548	3.30 \pm .78	523	3.17 \pm .86
Nutrition education is part of the elementary school day	553	3.23 \pm .77	521	3.00 \pm .77

^aScale = 4 (*very important*) to 1 (*not important*)

^bImportance mean and standard deviation scores in descending order

^cScale = 4 (*goal attained*) to 1 (*not applicable*)

These findings tend to match focus group discussion findings. Physical activity is part of the required curriculum in some states; therefore, the high rate of attainment may be related to state requirements, rather than wellness policy requirements. In addition, many focus group participants felt this was the easiest part of the wellness policy to implement, since staff was usually available and little equipment was needed. On the other hand, many focus group participants were less enthusiastic about implementing nutrition education in the curriculum.

Principals and teachers noted a lack of time in the school day for additional subject matter, and teachers did not believe that they had enough education to feel comfortable delivering nutrition education. As Shahid (2003) found, school professionals' inadequate training in nutrition education may be reflective of the lower levels of attainment in the present study.

Section II: Roles and Responsibilities

The second section of the survey also used a dual response to assess perceptions of participants. The level of importance as well as the level of involvement relating to implementation of a LWP was evaluated. Both items were rated using a 4-point scale, with 4 representing the highest level of importance or involvement. Respondents ranked "encourage students to eat healthy" ($3.70 \pm .51$), "promote physical activity" ($3.66 \pm .54$), and "increase physical activity" ($3.63 \pm .59$) as the top three importance roles or responsibilities to implementing a LWP. "Conduct taste tests for new foods" was ranked with lowest mean score for importance ($2.67 \pm .95$). With the exception of this question, all other questions had a mean score above 3.0, indicating high levels of perceived importance.

The levels of involvement in implementing a wellness policy were considerably lower than levels of perceived importance. Out of the 19 role and responsibility statements, 17 statements ranked mean scores of $2.88 \pm .89$ to 1.99 ± 1.01 . Whereas the highest levels of involvement were reported as "create awareness of school wellness" ($3.52 \pm .96$) and "encourage students to eat healthy" ($3.06 \pm .86$), all other survey statements measuring participants' level of involvement ranked somewhat involved to not involved. The statement ranked with the lowest score for level of involvement was "include nutrition education information in the lesson plans" (1.99 ± 1.01). All statements associated with roles and responsibilities are in Table 4.

Table 4

Level of Importance and Involvement Related to Roles and Responsibilities of Implementing a School Wellness Policy

Section II Survey Statements	Total <i>n</i>	Importance ^{ab} Mean + SD	Total <i>n</i>	Involvement ^c Mean + SD
Encourage students to eat healthy	561	3.70 ± .51	544	3.06 ± .86
Promote physical activity	557	3.66 ± .54	542	2.73 ± 1.08
Increase physical activity	555	3.63 ± .59	541	2.52 ± 1.11
Ensure that guidelines are met when implementing the policy	554	3.60 ± .60	539	2.07 ± 1.17
Be a positive model/example of healthy behaviors for elementary students	561	3.46 ± .67	546	2.88 ± .89
Promote school wellness	558	3.40 ± .66	547	2.72 ± .97
Provide nutrition education information	552	3.34 ± .68	533	2.44 ± 1.00
Motivate students to follow the wellness policy	559	3.32 ± .70	541	2.52 ± .97
Interpret school wellness policy requirements	558	3.28 ± .71	538	2.60 ± 1.08
Educate the local community on wellness policy guidelines	556	3.25 ± .73	536	2.25 ± .96
Monitor and enforce wellness policy and procedures	562	3.25 ± .72	548	2.66 ± .98

^aScale = 4 (*very important*) to 1 (*not important*)

^bImportance mean and standard deviation scores in descending order

^cScale = 4 (*very involved*) to 1 (*not involved*)

(table continues)

Table 4 (continued)

Level of Importance and Involvement Related to Roles and Responsibilities of Implementing a School Wellness Policy

Section II Survey Statements	Total <i>n</i>	Importance ^{ab} Mean + SD	Total <i>n</i>	Involvement ^c Mean + SD
Create awareness of school wellness	558	3.25 ± .71	543	3.52 ± .96
Discourage high calorie/high fat foods brought from home	559	3.19 ± .79	548	2.44 ± 1.04
Explore/investigate/locate healthy food alternatives	553	3.11 ± .82	545	2.31 ± 1.10
Educate parents/families on wellness policy guidelines	553	3.10 ± .80	536	2.12 ± .97
Seek resources for implementing the local wellness policy	559	3.07 ± .80	543	2.28 ± 1.04
Include nutrition education information in lesson plans	556	3.07 ± .83	530	1.99 ± 1.01
Advocate for change in the school community	552	3.05 ± .82	541	2.37 ± .99
Conduct taste tests for new foods	559	2.67 ± .95	545	2.01 ± 1.15

^aScale = 4 (*very important*) to 1 (*not important*)

^bImportance mean and standard deviation scores in descending order

^cScale = 4 (*very involved*) to 1 (*not involved*)

Section III: Implementation Issues

In the third section of the survey, participants were asked to score their level of agreement to benefits and barriers related to implementation of a LWP. A 5-point rating scale was used, with 5 being strongly agree. Of the 11 benefits listed on the survey, respondents most strongly agreed that the wellness policy would “improve physical fitness among elementary students” (4.35 ± .70). This benefit was followed by “promote life-long eating habits”

(4.29 ± .75) and “increase intake of healthy foods” (4.28 ± .66). Most of the respondents strongly agreed with most of the benefits listed, as eight of the 11 items had a mean score above 4.

Regarding potential barriers, respondents most strongly agreed they “need the support of school administration” (4.58 ± .55). This barrier was closely followed by the “need the support of teachers” to implement the policy (4.57 ± .57). Strangely, and in contrast to what was mentioned in the focus groups regarding lack of time, respondents did not rank “leave less time for the ‘No Child Left Behind’ program” (2.86 ± 1.15) or “demand a lot of time from teachers” (2.83 ± 1.09) as major barriers to school wellness policy implementation. Means and standard deviations for the other benefits and barriers are listed in Table 5.

Table 5

Level of Agreement on Benefits and Barriers Related to Implementation of a School Wellness Policy

Section III Survey Statements	Total <i>n</i>	Agreement ^a Mean ± SD
Benefits		
Improved physical fitness among students	561	4.35 ± .70
Promote life-long eating habits	560	4.29 ± .75
Increased intake of healthy foods	564	4.28 ± .66
Improved learning ability	561	4.15 ± .71
Increased academic performance	562	4.12 ± .75
Decreased illness	561	4.10 ± .80

^aScale = 5 (*strongly agree*) to 1 (*strongly disagree*)

(table continues)

Table 5 (continued)

*Level of Agreement on Benefits and Barriers Related to Implementation of a
School Wellness Policy*

Section III Survey Statements	Total <i>n</i>	Agreement ^a Mean ± SD
Benefits		
Decreased risk of chronic disease	561	4.05 ± .83
Improved physical fitness among teachers/staff	561	4.01 ± .90
Improved attendance	563	3.99 ± .86
Improved behavior in the classroom	564	3.88 ± .88
Improved eating habits at home	561	3.79 ± .97
Barriers		
Need support of the school administration	558	4.58 ± .55
Need the support of teachers	557	4.57 ± .57
Need support of parents/families	561	4.47 ± .67
Takes time to implement	557	4.34 ± .76
Need funding to implement adequately	549	3.92 ± .96
Limit student's choices of food they like	562	3.09 ± 1.13
Decreased revenue from vending	554	3.06 ± 1.17
Leave less time for "No Child Left Behind" Program	556	2.86 ± 1.15
Demand a lot of time from teachers	559	2.83 ± 1.09

^aScale = 5 (*strongly agree*) to 1 (*strongly disagree*)

Section IV: Healthy Elementary School Environment

As part of the original concept paper, researchers set out to establish a definition of a healthy school environment. In 2005, the SNA released a model policy and guidelines related to school wellness. In this release, the SNA recognized that a healthy school environment encompasses more than healthy meals in the cafeteria (School Nutrition Association [SNA], 2005). Focus group participants described a healthy school environment with statements related to overall health and safety of the students. When the focus group themes were translated into the quantitative survey, “has a clean and sanitary cafeteria” ($4.81 \pm .41$) and “is safe and secure” ($4.81 \pm .42$) were most highly agreed upon. Although still high, “encourages provision of healthy food choices on campus” ($4.55 \pm .65$), was not ranked as high as other statements. All statements were agreed upon with means above 4.0. See Table 6 for statements related to a healthy school environment.

Table 6

Level of Agreement on Descriptions Associated with a Healthy School Environment

Section IV Survey Statements	Total <i>n</i>	Agreement ^a Mean \pm SD
Is safe and secure	545	4.81 \pm .42
Has a clean and sanitary cafeteria	545	4.81 \pm .41
Includes daily physical activity	559	4.80 \pm .41
Has active/playing children	546	4.75 \pm .46
Has clean and sanitary classrooms	553	4.74 \pm .51
Has comfortable classrooms	537	4.64 \pm .55
Has an inviting cafeteria	543	4.64 \pm .52
Has an inviting playground	537	4.62 \pm .60
Allows for the display of healthy messages and posters	542	4.62 \pm .52
Promotes adult-student interaction	547	4.57 \pm .60
Has adults who model healthy behavior	547	4.56 \pm .62
Encourages provision of healthy food choices on campus	538	4.55 \pm .65
Allows for the use of bright cheerful colors	537	4.49 \pm .66
Is a stress-free environment	536	4.30 \pm .81
Does not use food as punishment or reward for student behavior	544	4.28 \pm .95
Does not penalize students for talking in the cafeteria	548	4.27 \pm .87
Does not allow fundraising/advertising that exploits student health	552	4.05 \pm 1.02

^aScale = 5 (*strongly agree*) to 1 (*strongly disagree*)

Section V: Training and Resources Needed to Aid in Attaining School Wellness

Many resources have been developed to guide school professionals with implementation of school-based nutrition programs. Examples include *Guidelines for School Health Programs to Promote Lifelong Healthy Eating*, (Centers for Disease Control and Prevention, 1996), *Healthy School Meals...Healthy Kids! A Leadership Guide for School Decision-Makers* (also known as Team Nutrition) (United States Department of Agriculture, Food and Consumer Service, 1997), and more recently, *SNA Local Wellness Policy Guidelines* (School Nutrition Association, 2005). These resources outline plans for implementation as well as include and/or recommend training and technical assistance for school personnel. Without the resource and the accompanying training, these programs could not be effective. Furthermore, findings from a study by Cohall et al. (2007) regarding health-promoting interactions between teachers and students indicated that staff development was needed to address students' concerns about physical activity and nutrition. The following findings from the present study support Cohall's findings. Based on the information gathered in the focus group interviews, it was found that many school professionals felt that additional resources and/or training were needed to adequately implement a LWP. As part of the final survey, three statements focused on training needed, while 11 statements focused on resources needed.

Respondents most strongly agreed that they needed training on "strategies to implement the school wellness policy" ($3.72 \pm .93$). Additional staff was recognized as the most needed resource. Having "physical education instructors" ($4.41 \pm .88$) and "a nurse in every school" ($4.41 \pm .89$) were most strongly agreed upon by respondents as needed resources. See Table 7 for level of agreement on needed training and resources.

Table 7

Level of Agreement on Training and Resources Needed to Implement the Wellness Policy

Section V Survey Statements	Total <i>n</i>	Agreement ^a Mean \pm SD
<i>I need training on...</i>		
Strategies to implement the school wellness policy	542	3.72 \pm .93
The school wellness policy	553	3.51 \pm 1.03
Nutrition education (healthy choices, food pyramid, diet, etc.)	544	3.44 \pm 1.08
<i>The following resources are needed...</i>		
A nurse in every school	561	4.41 \pm .89
Physical education instructors	559	4.41 \pm .88
Parent education materials	556	4.29 \pm .74
Current information on wellness issues	559	4.25 \pm .80
Exercise equipment	560	4.18 \pm .86
Wellness and nutrition teaching aids (videos, posters, etc.)	557	4.18 \pm .81
Funding for marketing, equipment, staff, etc.	557	4.15 \pm .90
Updated nutrition information	561	4.08 \pm .85
Lesson plan materials for nutrition education	561	3.94 \pm .91
A registered dietitian/nutrition educator on staff for the district	559	3.84 \pm 1.11
In-service coordinator to plan activities and education	561	3.75 \pm 1.02

^aScale = 5 (*strongly agree*) to 1 (*strongly disagree*)

Analysis of Results by Group

Cross-tabulations were conducted to determine if any differences in responses existed between study groups. With the large number of variables included in the analysis, no statistical significance was found. However, some trends in the data emerged. Principals were more likely to report attainment of the following areas regarding school wellness goals: “physical education is included in the curriculum” and “physical activity is part of the elementary school day” as well as “additional wellness activities are planned throughout the year.” SNDs were more likely to rate higher wellness issues directly related to the school nutrition program, including “ensure that state/federal guidelines are met when implementing policy,” “interpret school wellness policy requirements,” and “explore/investigate/locate healthy food alternatives.” Teachers reported a need for training on “strategies to implement the wellness policy or program,” while parents most strongly agreed they needed training on “school wellness policy requirements” and that there was a need for “a registered dietitian/nutrition educator on staff for the district.” These findings indicate that principals, SNDs, teachers, and parents are functioning in their roles as administrators, food service and nutrition coordinators, classroom coordinators, and primary caregivers respectively.

Not surprisingly, those participants who reported that a wellness policy had been fully implemented in their elementary school also reported higher levels of attainment of “nutrition education is included in the curriculum,” “nutrition education is part of the elementary school day,” “additional wellness activities are planned throughout the school year,” and “a designee oversees implementation of the wellness policy.” For those that reported the wellness policy in the school district was not written, a high level of agreement was reported on the need for

training on “school wellness policy requirements” as well as “strategies to implement the wellness policy or program.”

CONCLUSIONS AND RECOMMENDATIONS

Limitations to the Research Study

One of the primary limitations to this study occurred during the focus group interviews. Most of the participants in the focus groups were comprised of the committees developed to meet requirements set forth by the LWP. The participants were fully immersed in planning and implementation of the policy in their school district. Therefore, the content presented in the focus group, and ultimately represented in the final survey, may not reflect the feelings of those that were not as involved in policy planning.

A second limitation to the survey methodology was the way in which the surveys were distributed. SNDs were asked to deliver a survey to a principal, a teacher, and a parent. Since the surveys were not mailed directly to the participants, it may have influenced the low return rate of the survey. However, there was a fairly equal distribution between principals, SNDs, teachers, and parents that responded to the survey.

A statistical limitation to the survey was the large number of questions on the survey. When interpreting the ANOVA results, care must be taken not to place a large emphasis on any statistical differences found.

The inclusion of parents in the study served as a limitation due to their limited knowledge regarding implementation of a LWP. While researchers felt it was important to gain the perspective of this group, many parents have limited knowledge of the wellness policy and even less knowledge related to its implementation within each school district. Therefore, some of the answers given may have been a guess, with the potential to skew the results.

A final limitation was the time of year in which the survey was distributed. The survey was mailed in the late spring of 2007. This proved to be a time when school officials were busy

in making ready for annual achievement testing and a time of year when schools were closed for spring holidays.

Research Study Conclusions

While survey administration took place nearly eight months after the required implementation of the LWP, 61% of those responding to the survey reported full to at least partial implementation of the wellness policy. Only 1.6 percent reported not having a policy written. Overall, it appeared that most of the policy requirements were being implemented. Findings from this study indicated that SNDs, principals, teachers, and parents considered school wellness in the elementary school setting important to the overall health of children. They viewed their roles as important in most aspects of a school wellness policy from encouraging students to eat healthy to advocating for change in the school community. Additionally, respondents reported their involvement in most of these areas to some degree. Respondents agreed that a healthy school environment should be safe, secure, clean, sanitary, and aesthetically pleasing. Also, they agreed that a healthy school environment should include healthy food choices, encourage physical activity, and promote positive interactions between school staff and students. Support from administration, teachers, and parents was viewed as a necessary component to achieving success in implementing a LWP. Without a supportive team to implement, manage, and evaluate the LWP, the potential for excellence would be challenging. Adequate training and creditable resources serve as best practices for laying a foundation for achieving the LWP goals and fostering the need for an LWP team.

Education and Training Implications

- Creditable training resources designed for school professionals would be advantageous to providing strategies for effective implementation.
- Training resources on current nutrition education information are needed for parents and teachers.
- Wellness and nutrition education teaching aids (computer aids, Web-based modules) are needed to support the nutrition education goal of a LWP.
- Information is needed for school administrators regarding leadership skills necessary to support, promote, and effectively form internal and external partnerships for enhancing school wellness.
- Train-the-trainer modules are needed for SNDs to train staff on operational approaches regarding their role in supporting a healthy school environment.
- A best practice resource could provide a model for the school community to implement, manage, and evaluate a LWP that effectively impacts children's health and wellness.

Research Implications

- Assess evaluation practices of LWP goals.
- Explore the best practices for creating a wellness environment.
- Explore students' perceptions of adults modeling healthy behaviors and the influences on operational practices in support of a school wellness environment.
- Explore the influence of school wellness policies on menu planning, student food choices, and plate waste.
- Investigate the financial impact of healthy food options on school nutrition programs.

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Appendix A

Focus Group Questions

Focus Group Questions

Introduction

I am working with the Applied Research Division of the National Food Service Management Institute on a research project. The NFSMI is the only national research unit funded by the USDA to conduct Child Nutrition Research. The purpose of this study is to investigate school professionals' (like you) attitudes toward elementary school wellness environments and wellness policy implementation. Your participation is critical to the success of this focus group discussion and study. Throughout the discussion, I want you to respond to the discussion based on your "hat" of responsibility: school nutrition director, manager, administrator, teacher, and parent.

Transition

Over the past few years there has been a great deal of discussion about creating a school wellness environment for our nation's children. Recently, a local wellness policy law was enacted, a law requiring each local education agency or school district participating in the National School Lunch program and/or School Breakfast Program to develop a policy to promote the health of the students and address the growing problem of childhood obesity. The policy was to be implemented July 2006, and at a minimum the policy should include the following:

- Goals for nutrition education;
- Goals for physical activity;
- Nutrition guidelines for all foods and beverages available on school campuses during the school day (**Please note that this includes vending machines, student stores, concession stands, fundraising efforts, and yes, even classroom parties**);
- Ensure that the local guidelines for reimbursable school meals meet the program requirements and nutrition standards set forth by federal regulations;
- Goals for other school-based activities designed to promote student wellness;
- Designate one or more persons within the district to ensure that each school fulfills the district's Local Wellness Policy; and
- An implementation plan.

Questions:

Icebreaker: Think of when you were in elementary school. What was your favorite food served?

1. Given the list of policy requirements, what do you feel are going to be the major components of a school wellness program or policy?
2. What do you see as your role in implementing the school wellness program?
3. The new public law that supports implementation of a school wellness policy for the 2006-07 school year requires implementation during "the school day." How would you define "the school day?"
4. What are the benefits when school wellness is emphasized and promoted in the elementary school setting?
5. What are the challenges schools will face when implementing a school wellness program?
6. When you think about school wellness, what elements make for a healthy environment?

7. What type of training is needed to implement a school wellness program?
8. In your opinion, what resources are needed to effectively implement a school wellness program in elementary schools?
9. Are there issues and concerns that we have not discussed related to school wellness implementation?

Thank you for participating in this discussion. You are one of four districts where we are conducting focus groups on this issue. The information gained will support our efforts to develop a survey that will be distributed nationwide this fall. Again, thank you for your time and contribution you have made to this research effort.

Appendix B

Survey Evaluation Form

Investigation of School Professionals' Attitudes Toward School Wellness Implementation and their Views Toward School Meals, Healthy Food Options, Dining Environment, and Nutrition Education in the School Setting

Survey Evaluation Form

Thank you for volunteering your time to assist us in the development of this survey. We want to be sure that the cover letters and survey are clear and easy to respond to before beginning our research project. Please assist us by answering the following questions. Revisions will be made based on your suggestions.

Cover Letter	YES	NO	Recommendations for Improvement
Did the cover letter clearly indicate what the purpose of the research is? If not, suggest improvement.			
Did the cover letter clearly indicate what is expected of the sponsor? If not, suggest improvement.			
Survey	YES	NO	Recommendations for Improvement
Were the directions for completing each part of the survey clear? If not, suggest improvement.			
Were the statements written clearly? If not, suggest improvement.			
Was the terminology appropriate for school principals or other school officials? If not, suggest improvement.			
Were there statements in the survey that you would exclude from the questionnaire? If yes, indicate the statement(s) that you would exclude.			
Were there any other statements that you would include in the survey? If yes, indicate the statement(s) that you would include.			
Were the response categories understandable? If not, suggest improvement.			

How long did it take you to complete the questionnaire? _____ Minutes

In the space below or on the back, please indicate any additional suggestions for improvement of the questionnaire.

Thank you for your assistance!

Appendix C

Scannable Survey



Local Wellness Policy Implementation in Elementary Schools

Completely fill in the circle of your answer. Use a #2 pencil.

Correct: ●●● Use No. 2 Pencil Only ~~Incorrect~~ Incorrect: ⊗ ⊕ ⊖ ⊗

SECTION I: GOALS								
INSTRUCTIONS: Please read each of the following statements regarding school wellness goals. In the LEVEL OF IMPORTANCE column, indicate whether YOU think the following statements are important to implementing the wellness policy in your elementary school by using the scale 4 (VERY IMPORTANT) to 1 (NOT IMPORTANT). In the LEVEL OF ATTAINMENT column, indicate to what extent YOUR elementary school has attained the following goals by using the scale 4 (GOAL ATTAINED) to 1 (NOT APPLICABLE).	Level of Importance				Level of Attainment			
	Very Important	Important	Somewhat Important	Not Important	Goal Attained	Steps to Attain Goal are in Progress	Goal Has Not Been Set	Not Applicable
	1. Nutrition education is included in the curriculum	4	3	2	1	4	3	2
2. Nutrition education is part of the elementary school day	4	3	2	1	4	3	2	1
3. Physical education is included in the curriculum	4	3	2	1	4	3	2	1
4. Physical activity is part of the elementary school day	4	3	2	1	4	3	2	1
5. Foods sold on campus (i.e. vending, school stores) include healthy choices	4	3	2	1	4	3	2	1
6. School meals meet USDA requirements	4	3	2	1	4	3	2	1
7. Healthy menu items are available for children to select	4	3	2	1	4	3	2	1
8. Additional wellness activities are planned throughout the school year	4	3	2	1	4	3	2	1
9. A designee oversees implementation of the local wellness policy	4	3	2	1	4	3	2	1

SECTION II: ROLES AND RESPONSIBILITIES								
INSTRUCTIONS: Please read each of the following statements regarding roles and responsibilities of implementing the local wellness policy. In the LEVEL OF IMPORTANCE column, indicate whether this role or responsibility is important to implementing the local wellness policy in YOUR elementary school by using the scale 4 (VERY IMPORTANT) to 1 (NOT IMPORTANT). In the LEVEL OF INVOLVEMENT column, indicate to what extent YOU are involved in this role or responsibility in implementing the local wellness policy in your elementary school by using the scale 4 (VERY INVOLVED) to 1 (NOT INVOLVED).	Level of Importance				Level of Involvement			
	Very Important	Important	Somewhat Important	Not Important	Very Involved	Involved	Somewhat Involved	Not Involved
	1. Monitor and enforce school wellness policy and procedures	4	3	2	1	4	3	2
2. Encourage students to eat healthy	4	3	2	1	4	3	2	1
3. Ensure that state/federal guidelines are met when implementing policy	4	3	2	1	4	3	2	1
4. Interpret school wellness policy requirements	4	3	2	1	4	3	2	1
5. Discourage high calorie/high fat foods brought from home	4	3	2	1	4	3	2	1
6. Educate the local community on school wellness policy	4	3	2	1	4	3	2	1
7. Educate parents/families on wellness policy guidelines	4	3	2	1	4	3	2	1
8. Provide nutrition education information	4	3	2	1	4	3	2	1
9. Include nutrition education information in lesson plans	4	3	2	1	4	3	2	1
10. Increase physical activity	4	3	2	1	4	3	2	1

SECTION II: ROLES AND RESPONSIBILITIES (CONTINUED)		Level of Importance				Level of Involvement			
		Very Important	Important	Somewhat Important	Not Important	Very Involved	Involved	Somewhat Involved	Not Involved
11.	Conduct taste tests for new foods	4	3	2	1	4	3	2	1
12.	Be a positive model/example of healthy behaviors for elementary students	4	3	2	1	4	3	2	1
13.	Advocate for change in the school community	4	3	2	1	4	3	2	1
14.	Create awareness of school wellness	4	3	2	1	4	3	2	1
15.	Promote school wellness	4	3	2	1	4	3	2	1
16.	Seek resources for implementing the local wellness policy	4	3	2	1	4	3	2	1
17.	Motivate students to follow the wellness policy	4	3	2	1	4	3	2	1
18.	Promote physical activity	4	3	2	1	4	3	2	1
19.	Explore/Investigate/Locate healthy food alternatives	4	3	2	1	4	3	2	1

SECTION III: IMPLEMENTATION ISSUES		Level of Agreement				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
INSTRUCTIONS: Please indicate your level of agreement with the following statements regarding issues related to the local wellness policy in your elementary school by using the scale 5 (STRONGLY AGREE) to 1 (STRONGLY DISAGREE).						
Implementing our local wellness policy will...						
1.	Improve behavior in the classroom	5	4	3	2	1
2.	Increase intake of healthy foods	5	4	3	2	1
3.	Improve learning ability	5	4	3	2	1
4.	Increase academic performance	5	4	3	2	1
5.	Improve attendance	5	4	3	2	1
6.	Decrease illness (colds, etc.) among elementary students	5	4	3	2	1
7.	Improve physical fitness among elementary students	5	4	3	2	1
8.	Improve physical fitness among teachers/staff	5	4	3	2	1
9.	Promote life-long eating habits	5	4	3	2	1
10.	Decrease risk of chronic diseases among elementary students	5	4	3	2	1
11.	Improve eating habits at home	5	4	3	2	1
12.	Limit students' choices of foods they like	5	4	3	2	1
13.	Need the support of parents/families	5	4	3	2	1
14.	Need the support of the school administration	5	4	3	2	1
15.	Need the support of teachers	5	4	3	2	1
16.	Take time to implement	5	4	3	2	1
17.	Leave less time for the "No Child Left Behind" program	5	4	3	2	1
18.	Demand a lot of time from teachers	5	4	3	2	1

SECTION III: IMPLEMENTATION ISSUES (CONTINUED)		Level of Agreement				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Implementing our local wellness policy will...						
19.	Decrease school revenue from vending	5	4	3	2	1
20.	Need funding to implement adequately	5	4	3	2	1

SECTION IV: HEALTHY ELEMENTARY SCHOOL ENVIRONMENT		Level of Agreement				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
INSTRUCTIONS: Please indicate your level of agreement with the following statements by using the scale 5 (STRONGLY AGREE) to 1 (STRONGLY DISAGREE). A healthy school environment for elementary children...						
1.	Includes daily physical activity	5	4	3	2	1
2.	Has active/playing children	5	4	3	2	1
3.	Has clean and sanitary classrooms	5	4	3	2	1
4.	Has a clean and sanitary cafeteria	5	4	3	2	1
5.	Is safe and secure	5	4	3	2	1
6.	Has comfortable classrooms	5	4	3	2	1
7.	Has an inviting cafeteria	5	4	3	2	1
8.	Has an inviting playground	5	4	3	2	1
9.	Does not penalize students for talking in the cafeteria	5	4	3	2	1
10.	Is a stress-free environment	5	4	3	2	1
11.	Allows for the use of bright cheerful colors	5	4	3	2	1
12.	Allows for the display of healthy messages and posters	5	4	3	2	1
13.	Has adults who model healthy behavior	5	4	3	2	1
14.	Promotes adult-student interaction	5	4	3	2	1
15.	Does not use food as punishment or reward for student behavior	5	4	3	2	1
16.	Encourages provision of healthy food choices on campus	5	4	3	2	1
17.	Does not allow fundraising/advertising that exploits student health	5	4	3	2	1

SECTION V: TRAINING AND RESOURCES NEEDED TO AID IN ATTAINING SCHOOL WELLNESS		Level of Agreement				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
INSTRUCTIONS: Please read the following statements regarding training and resources needed to aid in attaining school wellness in YOUR elementary school and indicate your level of agreement by using the scale 5 (STRONGLY AGREE) to 1 (STRONGLY DISAGREE). I need training on...						
1.	School wellness policy requirements	5	4	3	2	1
2.	Strategies to implement a school wellness policy or program	5	4	3	2	1
3.	Nutrition education (such as teaching healthy choices, food pyramid, balanced diet)	5	4	3	2	1

SECTION V: TRAINING AND RESOURCES NEEDED TO AID IN ATTAINING SCHOOL WELLNESS (CONTINUED)		Level of Agreement				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The following resources are needed...						
4.	Lesson plan materials for nutrition education	(5)	(4)	(3)	(2)	(1)
5.	Updated nutrition information	(5)	(4)	(3)	(2)	(1)
6.	Wellness and nutrition teaching aids (videos, posters/visual aids, interactive computer tools)	(5)	(4)	(3)	(2)	(1)
7.	Parent education materials	(5)	(4)	(3)	(2)	(1)
8.	Funding for marketing, equipment, staff, etc.	(5)	(4)	(3)	(2)	(1)
9.	A nurse in every school	(5)	(4)	(3)	(2)	(1)
10.	A registered dietitian/nutrition educator on staff for the district	(5)	(4)	(3)	(2)	(1)
11.	In-service coordinator to plan activities and education	(5)	(4)	(3)	(2)	(1)
12.	Exercise equipment	(5)	(4)	(3)	(2)	(1)
13.	Physical education instructors	(5)	(4)	(3)	(2)	(1)
14.	Current information on wellness issues	(5)	(4)	(3)	(2)	(1)

SECTION VI: PROGRAM AND PERSONAL CHARACTERISTICS	
This section seeks to learn more about you and your school/district. Please fill in the circle with the BEST answer for the following questions. (choose only one)	
1.	How would you best define the school day? <input type="radio"/> When the bell rings in the morning until the last bell in the afternoon <input type="radio"/> Arrival to school; departure from school <input type="radio"/> When the bell rings in the morning until the last extra-curricular activity ends <input type="radio"/> Any activity that takes place on the school campus (sporting events, club meetings, fairs, etc.) <input type="radio"/> Anytime under the care or responsibility of the school including campus activities and field trips
2.	What best describes your job title? <input type="radio"/> School Nutrition Director <input type="radio"/> Principal/Assistant Principal <input type="radio"/> Teacher <input type="radio"/> Parent
3.	In what USDA Region do you work? <input type="radio"/> Western - AK, AZ, CA, GU, HI, ID, NV, OR, WA <input type="radio"/> Mountain Plains - CO, IA, KS, MO, MT, ND, NE, SD, UT, WY <input type="radio"/> Midwest - IL, IN, MI, MN, OH, WI <input type="radio"/> Northeast - CT, MA, ME, NH, NY, RI, VT <input type="radio"/> Mid-Atlantic - DC, DE, MD, NJ, PA, PR, VA, VI, WV <input type="radio"/> Southeast - AL, FL, GA, KY, MS, NC, SC, TN <input type="radio"/> Southwest - AR, LA, NM, OK, TX
4.	What was your level of participation on the local wellness policy committee in your elementary school? <input type="radio"/> Served as a committee member providing input <input type="radio"/> Heard of committee, but did not participate <input type="radio"/> Actively helped in writing the policy <input type="radio"/> Did not know there was a committee

5. Has your local wellness policy committee sought funding to support the Local Wellness Policy?
 Yes
 No
 Not Sure

6. If you answered Yes to question 5, please select the funding source from the list provided and indicate if funds were received:
 (choose all that apply) Y = YES N=NO

	Source		Did you receive funds?	
School district	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N
Community organization	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N
State agency	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N
Foundations	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N
Federal child nutrition program (example: Team Nutrition)	<input type="radio"/> Y	<input type="radio"/> N	<input type="radio"/> Y	<input type="radio"/> N

7. How will your elementary school assess the effectiveness of the local wellness policy in your district? (choose all that apply)
 We will randomly survey teachers, students, and/or parents on their thoughts about the policy
 We will send home comment cards regarding the policy with the elementary students
 We will discuss the policy at PTO and/or Staff meetings and ask for comments and new ideas
 We will use an outside source to assess the policy
 We have no plans to assess the implementation of the local wellness policy in our elementary school
 I am not sure

8. What is the progress in implementing the local wellness policy in your elementary school? (choose only one)
 Policy is fully implemented
 Policy is partially implemented
 Policy implementation has not begun
 Policy implementation is in the planning stage
 Policy has not been written
 I am not sure

THE REMAINING QUESTION IS FOR SCHOOL NUTRITION DIRECTORS ONLY

9. What is your certification status? (choose all that apply)
 Not certified
 State Department of Education certified
 SNA certified
 SNS (formerly SFNS) credentialed
 Registered Dietitian
 Licensed Dietitian/Nutritionist

Thank you for assisting us in this research study!

Appendix D

Cover Letters

February 23, 2007

Dear School Nutrition Director:

The National Food Service Management Institute (NFSMI), Applied Research Division, is conducting a national study to investigate principals', teachers', parents', and school nutrition directors' beliefs toward local wellness policy implementation in elementary schools. You play a vital role in the success of this study. We need your help to distribute the survey packets as listed in the steps below.

Step 1 – Select an elementary school in your district. If you have more than one elementary school, please select an elementary school with a supportive principal.

Step 2 – The survey packets are labeled for each of the study participants (school nutrition director, principal, teacher, and parent). The teacher and parent survey packets are clipped to the principal's packet.

- Please distribute those surveys to the school principal at the school selected in Step 1.
- Please request that the principal select and distribute the survey packets to one teacher and one parent, as instructed on the principal's survey packet.
- In addition, ask the principal to select a parent who is either active in PTA/PTO or a school employee with a child in elementary school.

Step 3 – Complete the survey in the packet labeled school nutrition director and return the survey in the enclosed self-addressed, postage-paid envelope on or before **March 16, 2007**.

Step 4 – Remind the study participants to complete and return their surveys in the enclosed self-addressed, postage-paid envelope provided to them on or before **March 16, 2007**.

In each packet, there is a cover letter explaining the study, survey, and a self-addressed, postage-paid envelope. The survey is to be completed by the study participants previously identified. It should take approximately 15-20 minutes to complete the survey. We are asking participants to return their completed survey in the envelopes provided on or before **March 16, 2007**.

School Nutrition Director
February 23, 2007
Page 2

Individuals representing the study participant groups contributed to the development of the survey, as NFSMI realizes that our research efforts are made better by involving those at the local level. The results of this study will assist USDA, state agencies, and NFSMI in the development of resources for local school districts.

Due to the anonymous nature of this study, there are no identifying codes linking responses to any individuals. We solicit open and honest answers. We also ask that each person respond based on his/her position and experiences as requested on the survey packet. Thank you for taking time from your busy schedule to distribute the survey packets, complete your survey, and return it by **March 16, 2007**. If you have any questions, please do not hesitate to contact us by email at Elaine.Molaison@usm.edu or Deborah.Carr@usm.edu or telephone at 1-800-321-3054.

Sincerely,

Elaine Fontenot Molaison, PhD, RD
Researcher

Deborah H. Carr, PhD, RD
Director

Enclosure

This project has been reviewed by the Human Subjects Protection Review Committee at The University of Southern Mississippi, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406, (601) 266-6820.

February 23, 2007

Dear Study Participant:

The National Food Service Management Institute (NFSMI) is a national center that conducts applied research and provides information and services that promote the continuous improvement of Child Nutrition Programs. Recently, *Section 204* of the *Public Law 108-265* was enacted, requiring each local education agency or school district participating in the National School Lunch Program and/or School Breakfast Program to develop a local wellness policy that promotes the health of students.

The Applied Research Division of NFSMI is conducting a research study that investigates principals', teachers', parents', and school nutrition directors' beliefs toward local wellness policy implementation in elementary schools. We developed this survey based on discussions with school nutrition directors, principals, teachers, and parents of elementary children. We solicit your open and honest answers and ask that you respond based on your experiences with the implementation of the wellness policy at your elementary school. Due to the anonymous nature of the study, there are no identifying codes that link your responses to you.

In this packet, you will find a survey and a self-addressed, postage-paid envelope. The survey is to be completed by you, and should take no longer than 15-20 minutes of your time. Please return the completed survey in the envelope provided on or before **March 16, 2007**. If you have questions, please do not hesitate to contact us by email at Elaine.Molaison@usm.edu or Deborah.Carr@usm.edu or by telephone at 1-800-321-3054.

Sincerely,

Elaine Fontenot Molaison, PhD, RD
Researcher

Deborah H. Carr, PhD, RD
Director

Enclosure

This project has been reviewed by the Human Subjects Protection Review Committee at The University of Southern Mississippi, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, Box 5147, Hattiesburg, MS 39406, (601) 266-6820.



National Food Service Management Institute

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