

NFSMI Research Summary
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Please note that this study was published before the implementation of Healthy, Hunger-Free Kids Act of 2010, which went into effect during the 2012-13 school year, and its provision for Smart Snacks Nutrition Standards for Competitive Food in Schools, implemented during the 2014-15 school year. As such, certain research may not be relevant today.

NFSMI Research Summary is a continuing series of summaries reporting recently completed research funded by the National Food Service Management Institute. This research has been produced by the National Food Service Management Institute–Applied Research Division, located at The University of Southern Mississippi with headquarters at The University of Mississippi. Funding for the Institute has been provided with federal funds from the U.S. Department of Agriculture, Food and Nutrition Service, to The University of Mississippi. The mission of NFSMI is to provide information and services that promote the continuous improvement of Child Nutrition Programs, such as: School Meals Programs, Summer Food Service Program, and Child and Adult Care Food Program.

Recently Completed Research

National Survey of School Nutrition Directors' Web-Based Training Needs

The purpose of this national, cross-sectional, descriptive study was to investigate school nutrition (SN) directors' perceived interest in utilizing Web-based training (WBT) within 14 functional areas and to explore logistical issues such as time, price, and education credits for developing and delivering WBT learning modules. A previous small WBT qualitative study was used to establish and validate the content of the survey instrument, which consisted of five main sections: Experiences with and interests in WBT; Satisfaction level with ability to perform in 14 functional areas; Interest level in participating in WBT for 14 functional areas; Logistical issues related to completing WBT; and Demographics. A random sample of 700 SN directors, equally stratified by USDA region with all states represented, was selected for this study. Descriptive statistics, Chi-square, and one-way ANOVA tests were used to examine survey responses. A total of 223 SN directors responded to the survey, for a response rate of 32%. Respondents reported working in SN programs for approximately 15.1 years, while the average number of years in their current position was about 10.2 years. Nearly all (99%) SN directors spent work time on the computer and most (80%) spent greater than 10 hours each week on the computer while at work. The majority (57%) of SN directors reported some previous experience with WBT. However, the variety of experiences were mostly limited to basic tasks such as links to Web pages and/or documents (40%) and links to video and/or audio files (27%). Relatively fewer SN directors interacted with an instructor (25%) or other students (14%). Even fewer SN directors earned Continuing Education Units (CEUs) (14%) or college credits (10%) through WBT. The most frequently identified benefits of completing WBT included the following: ability to complete the training at anytime of the day (85%); ability to move at your own pace or self-directed learning (82%); not traveling to a training or conference site (75%); gaining knowledge or getting current information (60%); and financial savings (55%). The most commonly acknowledged barriers to completing WBT included the following: technology issues or computer problems (46%); having the right software and/or hardware (42%); lack of interaction with an instructor (39%); trouble with on-site interruptions (33%); and delayed feedback to questions (33%).

Of the 14 functional areas, the following areas received the lowest ranks for satisfaction level in performance: "Nutrition Education," "Environmental Management," "Marketing," "Facility Layout and

Design and Equipment Selection,” and “Computer Technology.” Interest ratings in WBT ranked the highest for the following functional areas: “Nutrition Education,” “Nutrition and Menu Planning,” “Sanitation, Food Safety, and Employee Safety,” “Marketing,” and “Program Accountability.” Offering CEUs or college credits to SN directors for WBT courses produced a variety of responses. In total, 48% of SN directors indicated the importance of earning credits for WBT, including CEUs (23%), college credits (6%), or both CEUs and college credits (9%). Conversely, 45% of SN directors indicated they would complete WBT regardless of earning any type of credit. An optimal expectation for one WBT learning session is around 37 minutes and the most desired time to complete a WBT lesson was identified as 2-4 weeks. On average, SN directors indicated they would complete about 5 hours of CEU per year through WBT. While SN directors indicated \$29 per credit hour is a reasonable cost for WBT, about 25% indicated WBT should be offered at no charge. Although 83% of SN directors indicated they would complete WBT mostly or partially at work, they were uncertain whether workday release time would be provided by the school district.

Major highlights of this study are discovering a high interest in WBT, establishing and prioritizing functional areas most desired for WBT, and identifying logistical issues to consider when developing, promoting, and delivering WBT opportunities to SN directors. Overall, this study revealed that developing WBT opportunities for SN directors is a worthy endeavor and has the potential to be extremely successful if perceived barriers and logistical concerns are properly considered.

Identification of Issues Associated with Operating School Nutrition Programs in Districts with Less Than 30,000 Student Enrollments

The objectives of this study were to determine operational issues and practices SN directors encounter in school districts with student enrollments of less than 30,000 identify characteristics and qualities needed by these SN directors to be successful, and identify whether training is needed to develop the characteristics and qualities. The survey used in this study was adapted from previous NFSMI research that explored the uniqueness of school nutrition (SN) programs in large school districts (student enrollment of 30,000 or greater) by identifying the operational issues and practices SN directors encounter and describing characteristics of SN directors and the programs they operate. In section one of the survey, SN directors were asked to indicate their agreement with 52 SN operational issues and practices. Agreement was rated on a 4-point scale, ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Participants also were asked to indicate how often each operational issue and practice was encountered or performed by use of a 4-point scale that ranged from 1 (*never*) to 4 (*very often*). In section two, participants indicated how important each of the 33 characteristics or qualities was to being a successful SN director and specified their opinion on the importance of training to develop the characteristics and qualities. In both instances, importance was rated on a 4-point scale, ranging from 1 (*not important*) to 4 (*very important*). In section three, participants were asked to provide additional information about themselves and their SN operation.

The sample for this study consisted of 700 SN directors randomly selected from public school districts with less than 30,000 student enrollment. The sample was stratified by USDA region with all states being represented and 100 SN directors selected from each of the seven USDA regions. Two hundred and fifty seven (37%) directors responded to the survey. The majority of the SN directors responding were female (85.9%) with both male and female respondents having a baccalaureate degree or higher (62.3%). These SN directors worked in SN programs for 16 years or more (51%), and most (59.5%) had been in their current position for ten years or less. Prior to taking their current position, 22.5% of these SN directors had worked on SN management teams and 18.7% had worked as SN directors in other school districts. Respondents represented the seven USDA regions with school enrollment size ranging from less than 2,799 to 29,999 and the number of feeding sites ranging from less than five to 31 or greater. Twenty-seven of the 52 operational issues and practice statements had mean ratings of greater than 3.01. Of these 27 statements, 11 statements had mean ratings greater than 3.61, suggesting that SN directors strongly agreed with these operational issues. There was a strong agreement between operational issues and practices encountered by SN directors with the exception of SN directors in school districts with 2,799 or less student enrollment. SN directors in these smaller school districts demonstrated significantly less agreement with SN directors in the larger school districts on five operational issue and practice statements. Some of these differences may be related to the size of these school districts or differences in resources

available to SN programs. SN directors indicated that the majority of quality and characteristic statements (78.8%) were important or very important for their success as an SN director. When asked the importance of training to develop these qualities and characteristics, SN directors indicated that training was important or very important for 85% of the qualities and characteristics. These results suggest that SN directors working in these school districts value leadership and recognize the importance of training to develop leadership traits.

The findings of this study demonstrate that SN directors are business-minded career professionals operating the business of SN within the school setting. Regardless of district size, SN directors are facing similar operational issues. However, SN directors in school districts with less than 2,799 student enrollment may be encountering unique operational issues and practices compared to SN directors in school districts of larger enrollment size. Qualities and characteristics necessary for success and whether training is needed to develop these qualities and characteristics appear to be uniformly important to SN directors across the range of school district sizes suggesting a universal need for effective leadership skills in SN programs. This study demonstrates that SN directors value leadership characteristics and training to develop these characteristics.

Creating and Maintaining a Wellness Environment in Child Care Centers participating in the Child and Adult Care Food Program

The purpose of this multifaceted study was to identify the perceptions, practices, and training needs necessary for creating and maintaining a wellness environment in child care centers (CCC) participating in the Child and Adult Care Food Program (CACFP). In Phase I of the study, interviews and focus groups were conducted to collect qualitative information about wellness initiatives in CCCs. Telephone interviews were conducted with three child care experts regarding child care wellness issues/needs and to validate the focus group questions and protocol. Focus groups were conducted with CCC directors and state agency personnel in Colorado, Mississippi, Arkansas, Washington, and North Carolina. The qualitative information collected from the focus group discussion was used in the survey development for Phase II of the study. In Phase II, the survey instrument was evaluated by a review panel of child care professionals on content validity. The survey included four sections: Perceptions and Opinions; Practices; Training Needs; and Personal and Child Care Characteristics. Sections one through three focused on issues associated with creating and maintaining a wellness environment in CCCs with survey statements anchored on a 4-point Likert scale ranging from 4 (strongly agree) to 1 (strongly disagree), while section four addressed demographics.

A total of 363 surveys were returned (52%) and proportional representation was achieved from respondents in all seven USDA regions. The majority of respondents were female (99%). The majority of respondents (78%) indicated that they operated centers eight hours or more per day. They also reported that all meals and snacks were cooked and prepared onsite (86%) for children of variable ages. The age group most served (98%) were children 3 to 5 years. Survey findings matched responses from the focus group discussions that wellness in CCCs is a comprehensive approach that includes nutrition, safety, and physical activity for children. "Opportunities for active play" as part of the child care day was the most agreed upon statement. "Healthy food is served to children" was the second most agreed upon statement, followed by: "children feel safe"; "meals and snacks meet CACFP meal pattern requirements"; and "indoor and outdoor active play areas are safe". Practices having the highest mean ratings were, "parents are encouraged to communicate children's allergies and special nutrition needs", "children are receiving healthy beverages throughout the day", "children are encouraged to eat fruits and vegetables", "nutritious foods are purchased for all meals and vegetables", and "children receive healthy snacks". Exploratory factor analysis was performed on all survey sections. Only the wellness practice section, however, factored into two distinct categories: "Resources and Partnerships" and "Healthy Environment." The "Resources and Partnerships" factor included 13 practices that support the acquisition of resources and also networking with community organizations to create and sustain wellness practices in child care. The "Healthy Environment" factor included 13 child care practices that create active play and socialization opportunities for children and staff, as well as healthy food and nutrition practices. Respondents identified training issues essential to creating and maintaining a wellness environment

in child care and addressed the roles of directors and staff in providing direct care for children and communicating with parents about the children's needs. The training statement with the highest mean rating essential to creating and sustaining a wellness environment was "acquiring additional funding sources (grants, community organizations) to support a healthy environment".

Additional research is needed to build on the findings of this research study to identify goals and best practices or quality indicators for creating and maintaining a wellness environment in CCCs. Training and best practices should include the comprehensive approach identified in this study which includes nutrition, active play, safety, and other wellness components in child care.

Competency Based Performance Appraisals For School Nutrition Managers And Assistants/Technicians

The purpose of this research and development project was to create and validate competency-based performance appraisals for school nutrition (SN) manager and assistants/technicians centered on research that identified the competencies, knowledge, and skills for these SN professionals. Structured telephone interviews were conducted with expert panel members to explore components needed in performance appraisal forms and information guide for evaluating SN managers and assistants/technicians. The expert panel members indicated that an effective performance appraisal form should have (1) criteria clearly defining expected performance, (2) rating scale appropriately reflecting criteria, (3) clear instructions, (4) user-friendly format, (5) space for comments, and (6) plan for improvement. For the guide to be useful and comprehensible to SN practitioners at all levels of responsibility, the expert panels specified that it should include general and specific guidance customized to SN professionals written in clear and specific language familiar to potential users.

Draft appraisals were developed using expert panel results, review of pertinent research literature, and samples of existing forms submitted by SN professionals throughout the United States. The draft appraisal forms were developed with specific criteria denoting performance expectations for each functional area. The performance criteria for each functional area were based on the NFSMI Competencies, Knowledge, and Skills for Effective School Nutrition Managers and Competencies, Knowledge, and Skills for Effective School Nutrition Assistants/Technicians. Numerical rating was anchored on a five-point scale (1- Below standard, 2- Needs improvement, 3- Meets standard, 4- Area of strength, and 5- Exceeds standard). The accompanying guide discussed the importance of a standardized and periodic performance appraisal, appraisal process, challenges to effective performance evaluation, and techniques for improving results of a performance appraisal. The expert panels evaluated the drafts using a directed review instrument. After revisions were made, the forms and instructional guide were sent to a second review panel of SN professionals and state agency personnel for further evaluation. The researchers analyzed comments and recommendations received from the review panel and completed final revisions to the performance appraisal forms and guide.

Assessing performance is essential for employee growth and program improvement. Using the appropriate performance appraisal process and forms will facilitate effective assessment that contributes to achieving organizational goals. These performance appraisal forms were designed to be used as independent documents but are also useful as supplements to school district-mandated evaluations.

In-Classroom Breakfast Programs: Best Practices

The purpose of this research and development project was to use case study methodology to identify exemplary practices associated with in-classroom breakfast programs. After the pilot visit to a school district in the Southeast USDA Region, three school districts of varying sizes in the Mid-Atlantic Western, and Midwest USDA regions were selected based on recommendations from their state agency for operating an exemplary in-classroom breakfast program. A case study approach was used and the preparation, distribution, and service of in-classroom breakfast were observed. Interviews with school nutrition directors, principals, teachers, and other school personnel were conducted. The planning process for implementing an in-classroom breakfast program involved

school nutrition personnel, school administrators, teachers, custodians, and parents. The distribution and service of in-classroom breakfast were customized to each school within the districts; therefore, the initial development of the in-classroom breakfast model was time-consuming. Directors ranked high the following menu planning considerations: nutritive value, student preference, food cost, and food safety. Additional considerations were prepackaging, heating and cooling requirements, labor cost, packaging requirements, and teacher requests.

The school nutrition (SN) program directors and managers showed exceptional planning, organizational, and communication skills. The SN directors and supervisors maintained good communication with school principals. All SN managers used color coding for labels to organize foods and deliveries, forms designed for in-classroom breakfast, and regular communication with school personnel, students, and parents. The school nutrition personnel followed food safety and sanitation procedures and detailed schedules for breakfast deliveries. Accurate records for production and meal reimbursement categories were maintained. All three districts and the pilot district reported increased student participation in the breakfast program after implementation of in-classroom breakfast. Teachers and school administrators had positive impressions of in-classroom breakfast based on fewer tardy students, fewer disciplinary referrals, student focus on academics, and creation of a positive school culture. It can be concluded that improved nutrition intake for students does have an impact on student success and readiness for learning.

The planning for in-classroom breakfast should include menus, logistics of distribution and service, which includes staffing and record keeping. Continuous quality improvement techniques should be applied after implementation. The planning and implementation of in-classroom breakfast can be successful if a school team with representation from school nutrition, administration, teachers, custodians, students, and parents uses the best practice results from this study. The results of this study were used to develop a best practices resource and checklist. This resource will be useful for SN directors who wish to implement in-classroom breakfast programs or assess an existing in-classroom breakfast programs in schools.

Investigation of School Professionals' Perceptions And Practices Regarding Issues Influencing Recess Placement In Elementary Schools

This purpose of this study was to examine the perceptions of school professionals (school nutrition directors, school administrators, and teachers) regarding the nutritional, behavioral, and academic impact of recess placement, the barriers to initiating a recess before lunch program, and practices and policies related to successfully implementing a recess before lunch program. In order to investigate the perceptions and practices of school professionals related to recess placement, a two phase research design was employed. In the first phase of the study, eight nationwide focus group discussions were conducted, transcribed, and analyzed for themes. The qualitative data collected from the focus group discussions were then used to develop a quantitative survey instrument related to recess placement in the second phase of the study. The survey was pilot tested and revised, and the final survey was mailed to a national sample of 2,100 school nutrition directors, principals/assistant principals, and teachers. A total of 332 surveys were returned and used in statistical analysis, for a response rate of 15.8%. The survey instrument used in the second phase of the research project, titled *Issues Related to Recess Placement in Elementary Schools*, consisted of four sections. In the first section of the survey, participants were asked to indicate their level of agreement with a set of 51 statements about the effects of recess schedules in relation to lunch. In the second section of the survey, participants were asked to rate the level of importance of a set of 27 issues when determining how recess should be scheduled in relation to lunch. In the third section of the survey, participants were asked to rate the level of importance of a set of 33 issues in successfully implementing a recess before lunch program. In the fourth section of the survey, participants were asked to provide information about themselves or their schools or school districts.

This study identified the following six categories of potential effects of recess schedule in relation to lunch in elementary schools: food consumption, cafeteria behavior, classroom/recess behavior, additional needs, support, and scheduling. School nutrition professionals believed that recess before lunch programs, compared with recess after lunch programs, had more positive impacts on children's food consumption, cafeteria behavior, and recess/classroom behavior. However,

participants also identified several potential barriers associated with recess before lunch programs. They believed that recess before lunch programs created additional needs, required more support from all involved parties, and created more scheduling difficulties compared with recess after lunch programs. Thus, the general opinion of participants was that recess before lunch programs were associated with nutritional, behavioral, and academic benefits for children, but there were some additional challenges associated with these programs. This study also identified five categories of issues to consider when determining how recess should be scheduled in relation to lunch in elementary schools. The categories included: personnel support/workload, child feeding implications, logistics, scheduling, and behavior. Participants indicated that child feeding implications was the most important factor to consider when scheduling recess, followed by behavior, scheduling, personnel support/workload, and logistics. The individual items rated as most important to consider when scheduling recess in relation to lunch were maintaining instructional time, children's academic performance, and children's health and well-being. Thus, issues related to what is best for children emerged as most important. Issues important for successfully implementing a recess before lunch program were also identified in this study. Issues rated as most important by participants included: having strong leadership for the program, all involved parties working together to establish policy, and maintaining a positive attitude about the program. Additional issues related to scheduling emerged as important, including advance consideration of scheduling issues and being flexible with respect to scheduling. Thus, strong program leadership, inclusive policy making, and scheduling were all considered key factors in successful implementation of recess before lunch programs. Finally, school professionals' knowledge and attitudes about recess before lunch programs were also assessed in this study. The majority of participants reported being professionally aware of discussions or information about recess placement issues in elementary schools. However, a third of the participants reported that they were not aware of any research supporting or refuting the benefits of scheduling recess before lunch. Overall, the majority of participants supported scheduling recess before lunch in elementary schools.

Findings from this study suggest the need for additional research in several areas. Research is needed to build on this project by identifying best practices or quality indicators for implementing a recess before lunch program in elementary schools. This best practices resource could be used as a guide or assessment tool for school districts implementing or considering implementing a recess before lunch program. Research is needed to examine whether students' behavior, readiness to learn, and academic performance in afternoon classes are improved when recess is scheduled prior to lunch. Case studies of successful programs should be conducted to identify the effects of recess schedule in relation to lunch in elementary schools, using the six categories of effects identified in this project. Those categories included food consumption, cafeteria behavior, classroom/recess behavior, additional needs, support, and scheduling. Pre- and post-studies of schools that change from a recess after lunch to a recess before lunch schedule should be conducted to assess the effects of this change, as well as to identify practices that were important during the implementation of the schedule change.

Serving the Nutritional Needs of Pre-Kindergarten Children in the Public School Setting: Best Practices

The purpose of this research and development project was to identify the best practices or quality indicators for school nutrition (SN) professionals serving the nutritional needs of pre-kindergarten (PreK) children in the public school setting. The researchers used a best practices research model to identify best practices related to the seven practice categories from previous research for SN professionals in school districts offering PreK programs. The research project was conducted in two phases. In phase I, an expert panel of key stakeholders (SN directors, PreK teachers, principals, and early education directors) from four USDA regions convened to identify goals and best practices under the seven practice categories. The researcher provided a draft of goals and best practice statements to expert panel members for feedback on content, scope, and wording of quality indicators, organization, and formatting of the final guide. In phase II, comments and suggestions from the expert panel were used to revise the best practice guide for pilot testing by a review panel. The review panel consisted of SN directors, SN managers, PreK teachers, principals and early education directors with professional expertise in PreK programs in public schools. The revised best

practice guide was sent to the review panel to pilot and complete a directed review of the guide in order to validate and evaluate its usefulness. Based on review panel results, the best practice guide was revised and formatted as a Web-based, self-assessment tool for use by SN professionals. The final version of the *NFSMI Best Practice Guide for School Nutrition Professionals Serving the Nutritional Needs of Pre-Kindergarten Children* consists of seven practice categories, 17 goals, and 97 best practice statements. The guide could be used as a self-assessment tool to evaluate and monitor the quality of nutrition services within existing PreK programs or as a resource to plan new PreK programs.

Special Food and Nutrition Needs Of Children: Current Issues And Training Needed By School Nutrition Professionals

The purpose of this research was to identify the prevalence, barriers, and training resources needed related to serving school-aged children with special food and nutrition needs. An expert panel discussion was utilized in Phase I of the research. This qualitative research approach was used to gather information on the prevalence of special nutrition needs, resources and training needs, barriers in preparing and serving children with special needs, and the role of SN professionals in accommodating special needs. The information gathered from the panel discussion was used to develop and validate a questionnaire. During the second phase of the research, the questionnaire was mailed to 700 SN directors, representing each of the seven USDA regions. Also included in the packet was an identical questionnaire, which was to be delivered to a SN manager by the SN director, for a total of 1400 questionnaires distributed. The final questionnaire contained the following sections: Identification and Prevalence; Issues Related to Serving Children with Special Food and/or Nutrition Needs; Training/Resources to Serve Children with Special Food and/or Nutrition Needs; and Personal and Program Characteristics. A total of 405 questionnaires were completed and returned (28.9%). Slightly more than one-third of the respondents were SN directors/assistant directors (34.5%), and only 16.1% of the respondents were SN managers. The average respondent had been in SN more than 25 years, but in his/her current position for only 1 to 5 years. Milk allergies were the most commonly reported special need (80.6%), followed by peanut allergies (76.2%). Cystic fibrosis was the least reported special need (3.6%). Section II (Issues Related to Serving Children with Special Food and/or Nutrition Needs) focused on issues related to providing special food and/or nutrition needs. Both best practices and barriers were included in this section. A three-point scale 1 (strongly disagree) to 3 (strongly agree) was used to assess agreement with each of the statements. Participants most strongly agreed that a physician's order must be received once SN is aware of a child with special food and/or nutrition needs. This practice was followed in agreement by: "the SN manager ensures meals are appropriately prepared for the special needs child", "specific requirements of the diet must be received", and "confidentiality of the child's special needs are maintained". The respondents disagreed strongly with the following practices: "teachers can request menu modifications"; "posting questions regarding special needs on Meal Talk Listserv"; and "teachers monitoring food the child brings from home".

Training resource needs were evaluated in Section III of the questionnaire. Utilizing a four-point scale 1 (strongly disagree) to 4 (strongly agree), participants were asked to respond to each statement twice. They first were asked to respond to each statement using the phrase "I need training/resources on..." and then respond to each statement using the phrase "My staff needs training/resources on...". Both district-level SN staff and SN managers rated a personal need for training on implementing an Emergency Allergy Response Plan as the highest. District staff and managers both believed they needed training on the conditions that are considered disabilities under Section 504 and in identifying foods to avoid for specific food allergies. In addition, both groups rated the same training needs in the bottom three. District staff and managers were less likely to agree that they personally needed training on reading and understanding ingredients on food labels, purchasing appropriate food items, and understanding confidentiality issues.

In Section IV of the survey, respondents provided personal and program characteristics. SN directors/assistant directors were most likely to be responsible for planning the menus to meet special needs (58.2%), while SN staff members were responsible for preparing the meals (84.8%). SN directors followed by SN managers were responsible for purchasing items for special menus (55.6% vs. 48.8%). Managers and parents were most likely to be responsible for selecting the actual

food items that were to be served to the students (57.4% vs. 48.5%). Over half of the respondents reported they have an Emergency Allergy Response Plan (54.8%) for children with special needs. Only 41.7% of the respondents indicated that emergency information is provided to the feeding sites by the SN office. Nearly one-third of the schools or school districts indicated that an “allergen free” environment was supported.

Investigation Of School Professionals’ And Parents’ Attitudes Toward Wellness Policy Implementation In Elementary Schools

The purpose of this research was to identify attitudes of school nutrition (SN) directors, principals, teachers, and parents regarding a local wellness policy (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, SN directors, 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 SN directors representing the seven USDA regions. Each packet contained a total of four identical surveys, one for the SN director, 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. 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. The important 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 lacked 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 in 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 important 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 SN directors, 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 to laying a foundation for achieving the LWP goals and fostering the need for an LWP team.

Case Study Approach Examining Local Wellness Policy Development And The Perceived Impact To The School Community

The purpose of this research 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 site visits to 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 also 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.