

2006 Child Nutrition Showcase Abstracts

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.

There were 15 research abstracts accepted for poster presentations at the School Nutrition Association's 2006 Annual National Conference in Los Angeles, CA. These abstracts relate to various aspects of nutrition/wellness and program operations, and will be presented in those categories.

NUTRITION/WELLNESS

School Professionals Identify Practices Necessary for Serving the Nutritional Needs of the Pre-K Child

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Purpose/Objectives

The purpose of this study is to identify prevailing practices of school professionals who serve the nutritional needs of Pre-Kindergarten (Pre-K) children in the public school setting.

Method

A survey was developed based on focus group discussions with school nutrition (SN) directors, SN managers, Pre-K teachers, principals, and early education/federal programs directors. The survey consisted of demographic questions and 42 practice statements to which respondents indicated their level of agreement using a four-point rating scale. A stratified random proportional sample of 700 SN directors was selected. SN directors were asked to complete a survey and distribute survey packets to the SN manager, elementary principal, Pre-K teacher, and early education director resulting in 3,500 mailed surveys.

Results

Due to returned survey packets, the sample was reduced to 3,272 from which 685 school professionals responded. All school professionals were represented with the highest number being SN directors (26%), followed by Pre-K teachers (23%). Thirty-three practice statements had mean ratings greater than three, suggesting that school professionals agreed with these practices. Factor analysis generated seven practice factors, with alpha levels for six factors ranging from 0.83 to 0.89. The alpha level for the seventh factor was 0.61. Practice factors were described as communication and training, nutritious meals and meal experiences, administrative support, encouragement, mealtime opportunities, dining environment, and healthy wellness practices.

Applications to Child Nutrition Professionals

Findings suggest that serving the nutritional needs of Pre-K children is a more wide-ranging and complex undertaking than just serving meals. A team approach is crucial to serving the nutritional needs of the Pre-K child. Team members should include, but not be limited to, the SN director, SN manager, Pre-K teachers, principals, and early education director. Effective communication among team members is essential. Understanding how each team member can and does contribute in each practice area will enhance the provision of nutritional services for the Pre-K child.

Impact of a School-based Coordinated Nutrition Intervention on Selection and Consumption of Fruits and Vegetables of Students in K-2

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Purpose/Objectives

The purpose of this study is to provide coordinated nutrition education on fruits and vegetables (F&V) at an elementary school and evaluate its impact on children's food selection and consumption at a school cafeteria.

Method

A nutrition education program was developed to educate K-2 students, parents/guardians, and foodservice staff at an elementary school over nine months. A total of 307 students received biweekly in-class education related to F&V for a total of 12 lessons. Parents received printed materials in the form of a biweekly newsletter, and foodservice staff attended three workshops related to F&V. Forms to record food selection and visual plate waste of the children during lunch were developed and pilot tested. For five days before and five days after the program, individual students' food selection and consumption at the school were observed and recorded daily. Descriptive statistics, cross-tabulation with chi-square analyses, t-tests, and ANOVA were calculated using SPSS. Statistical significance was determined at $p < 0.05$.

Results

Of 309 students enrolled in grades K-2, daily participation in school lunch varied from 176 to 207 individuals during the study period. A total of 933 trays were observed before the program and 1,000 trays after the program ended. Prior to nutrition education, only a small percentage of K-2 children selected carrots sticks (8.4%), steamed vegetables (4.0%), tossed salad (11.4%), green peas (17.3%), broccoli and cheese (12.8%), and lettuce/tomatoes (17.0%). An even lower percentage of children consumed more than half of the vegetables offered. After the intervention, selection of vegetables increased for carrot sticks (32.1%), steamed vegetables (6.8%), tossed salad (16.2%), green peas (25.9%), and broccoli and cheese (15.9%). The number of children who consumed more than half of the vegetables also increased. More children selected and consumed higher amounts of fruits than vegetables. Before the program, 36.4% to 77.1% of children selected various fruits, and 21.6% consumed more than half of the fruits offered. After nutrition education, only the selection and consumption of applesauce and fruited gelatin increased. There was no increase for selection and consumption of fresh fruits.

Applications to Child Nutrition Professionals

Results indicate that a coordinated effort to educate students, parents, and foodservice staff positively impacted children's selection and consumption of F&V, especially fresh vegetables.

Therefore, frequently offering fresh F&V and educating children, parents, and foodservice staff may be a viable approach to improving school children's consumption.

Comparison of Superintendents' and School Nutrition Directors' Views Concerning Wellness Policy Development

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Purpose/Objectives

Wellness policies must be initiated by School Year 2006 (SY06) in all school districts participating in federal food and nutrition programs. Since SY05 will be the planning period, this research investigates the opinions of superintendents and school nutrition program (SNP) directors who will be responsible for developing these policies and examines the amount of time each party will spend on this activity. Personal knowledge and stakeholders' opinions concerning wellness also were rated by survey respondents. The specific objective of this study is to determine whether differences exist between the two groups.

Method

A questionnaire was mailed in January 2006 to 885 SNP directors in a large northeastern state, as well as to a 50% random sample of school superintendents in the same districts. Chi-square and t-test analyses determined statistical differences in responses between the two groups.

Results

Usable questionnaires were obtained from 555 (63%) SNP directors and 294 (67%) superintendents. The groups were similar in that 78% of superintendents and 73% of SNP directors stated that wellness policy development had been started at their schools. A majority of both groups said the primary responsibility for developing the wellness policy would rest with the SNP director or the wellness committee. Superintendents personally thought that they would spend an average of three hours per week on wellness policy development, while SNP directors thought they would spend 3.5 hours of their time on the same task. Differences were found between the two groups concern familiarity with wellness policy legislation. Seventy-six percent of superintendents and 83% of SNP directors stated they were at least 75% sure that they were familiar with such legislation ($p < 0.05$). The two groups agreed on their personal commitment to health and wellness and their knowledge of stakeholder's opinions on the same issues. The exception was that 74% of superintendents were in agreement that they were knowledgeable in nutrition and other health issues related to the development of a wellness policy, whereas 82% of SNP directors agreed with the same statement ($p < .05$).

Applications to Child Nutrition Professionals

Superintendents and SNP directors are key players in wellness policy development and implementation. This research establishes important baseline information concerning the congruity of opinions between these two groups as they begin the process of developing wellness policies for SY06. Subsequent studies will track outcomes of this process and determine whether agreement between the two groups remains over time and is related to successful wellness policy implementation.

Comparison of Superintendents' and School Nutrition Directors' Views Concerning Wellness Policy Development

Martha Conklin PhD, RD, LDN; Carolyn Lambert PhD, RD; Pat Birkenshaw MA; and Vonda Fekete MS, RD, LDN

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Purpose/Objectives

Wellness policies must be initiated by the beginning of the 2006-07 school year in all school districts participating in federal food and nutrition programs. Since the 2005-06 school year will be the planning period, this research investigates the opinions of superintendents and school nutrition program directors concerning who will be responsible for developing these policies and the amount of time each party will spend on this activity. Personal knowledge and stakeholders' opinions about wellness also were rated by survey respondents. The specific objective of the study is to determine whether differences exist between these two groups.

Methods

A mailed questionnaire was sent in January 2006 to all school nutrition directors (n=880) in Pennsylvania and a random sample of 50% of school superintendents. Completed questionnaires were obtained from 612 directors (69.5%) and 323 superintendents (73.4%). Chi-square analysis determined statistical differences in responses between the two groups.

Results

A majority of both groups thought the primary responsibility for developing their wellness policy would rest with the director and both thought they would spend 7.5% of their time on wellness policy development. Superintendents and school nutrition directors held similar opinions about their knowledge of stakeholders' concerns about food and nutrition issues. More superintendents (80.1%) than directors (73.9%) stated that the development of the wellness policy had begun already ($p < 0.01$), while more directors (84.3%) than superintendents (77.3%) thought they were 75-100% familiar with the wellness legislation ($p < .05$). A greater number of superintendents (48.7%) than directors (40.1%) believed that federal school meals program menus would change as a result of the district's wellness policy ($p < .05$).

Applications to Child Nutrition Professionals

This research establishes important baseline information about the congruity of opinions between superintendents and school nutrition directors as they begin the process of developing wellness policies for the 2006-07 school year. Subsequent studies will track the outcomes of this process and determine whether agreement between the two groups remains over time.

Issues Related to Pennsylvania High School Students' Purchasing Behavior

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Purpose/Objectives

The purpose of this research is to identify environmental issues related to participation in school lunch and sale of competitive foods in Pennsylvania public high schools.

Methods

A survey was developed that included questions about school demographics, sales of competitive foods, average daily participation (ADP) in school lunch, and school nutrition policies. Surveys were distributed to 271 school foodservice directors (SFD) from Pennsylvania high school. These individuals, who were representative of the entire Pennsylvania high school system, were selected based upon chosen demographic characteristics. As an alternative to the hard-copy version of the survey, respondents were given the option to complete a web-based version. Descriptive and multiple regression analyses were done using SPSS® version 11.5.1.

Results

Two hundred and twenty-eight SFDs (84%) returned surveys. Percentage of students eligible for free or reduced price meals and the timing of lunch were significant predictors of a la carte sales. Those SFDs who indicated that their first lunch time began at 10:30AM reported higher a la carte sales. High enrollment was associated with fewer vending machines per student. The existence of soft drink machines owned by soft drink companies, for which the school receives a percent of sales, was associated with a higher number of vending machines per student. Enrollment was inversely related to the ADP. The percentage of students eligible for free or reduced price meals was positively associated with the ADP. SFDs who reported enforcement of policies prohibiting parents or students from bringing food into the cafeteria from local fast food establishments reported a higher ADP rate.

Applications to Child Nutrition Professionals

This research identifies several modifiable environmental issues related to participation in school meals and competitive food sales, including the timing of lunch and the existence and enforcement of a nutrition policy. These findings may be useful to child nutrition professionals who are developing wellness policies, promoting school meal participation, and establishing school environments to encourage healthier food choices by students.

Use of White Whole Wheat Flour in Schools

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Purpose/Objectives

Recent dietary guidelines recommend that children consume at least three servings of whole grains per day. This study examines the effectiveness of systematically raising the levels of white whole wheat flour in sandwich buns and dinner rolls served in school meals over the course of a school year in an effort to increase whole grain intake in children.

Methods

Subjects included 450 students (First Grade through Sixth Grade) from one elementary school in a large suburban school district in Minnesota. Rolls and sandwich buns were served eight times per month on the cafeteria line at designated flour levels with various entrees. In September, products made entirely of enriched flour were served to establish baseline intake. The level of white whole wheat flour in products (11%, 23%, 32%, 45%, 67.5%, 90%) was increased each month. At the end of each monthly collection, product consumption was compared to the baseline rate to determine if whole grain content should be increased, decreased, or remain the

same for the next month. Whole grain flour content was increased if consumption exceeded 75% of the baseline for buns and rolls. Both white whole wheat products were served without the option of choosing an enriched grain alternative. Grain product consumption was estimated through plate waste by measuring grain foods served and the amount left on the trays (buns/rolls served – buns/rolls plate waste = buns/rolls consumed).

Results

These data indicate that children readily consumed sandwich buns and dinner rolls served in the school cafeteria made with incrementally higher levels of white whole wheat flour. The average baseline refined grain intake was approximately 65% and 78% for buns and rolls, respectively. Buns were consumed at approximately a 65% level throughout the gradual introduction, which started at 11% whole wheat flour content and steadily rose to 90%. Dinner rolls with a 45% whole wheat content were consumed at about 68%, but consumption dropped off to about 51% for rolls made with the 68% whole wheat flour.

Applications to Child Nutrition Professionals

Given that a large proportion of United States children eat school meals, the use of white whole wheat flour in grain products served in school meals could make a substantial contribution to increasing overall whole grain intake by children.

PROGRAM OPERATIONS

Continuous Quality Improvement (CQI) Process Tailored for the School Nutrition Environment

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Purpose/Objectives

The purpose of this study is to encourage school nutrition (SN) directors to adopt a continuous quality improvement (CQI) process, which would increase their decision-making skills and encourage foodservice program excellence.

Method

Based on their experience with the topic, an expert panel of four SN directors and one educator were recruited for a work session to discuss the applicability of the CQI process to school nutrition programs. The six-step problem solving discipline (PSD) approach was used as a template. The panel reviewed each PSD step and discussed its application to the school nutrition environment.

Results

Many segments of the foodservice industry have incorporated the CQI process. As an industry, school nutrition programs have been hesitant to embrace CQI. The expert panel viewed the PSD approach as a viable resource for SN directors operating nutrition programs in a challenging and competitive environment. Each of the six steps was reviewed and tailored using terminology and

examples that speak to SN directors. The cause and effect diagram (also known as the Fishbone) was favored by the panel as a tool to visually analyze and dissect core problems targeted for improvement. The panel diagramed situations encountered in their school nutrition programs using the Fishbone process. The traditional Fishbone descriptors of environment, equipment, **Methods**, and employees were either expanded or changed to reflect school nutrition-specific circumstances. At the conclusion of the discussion, the expert panel recommended developing a web-based CQI resource for just-in-time access.

Applications to Child Nutrition Professionals

SN directors are faced with many challenges and opportunities to better serve their customers. Information gained from tailoring the CQI process for school nutrition programs will support the development of a web-based customer service resource. This resource would support SN directors in their operational decision-making processes as it relates to service. By incorporating the CQI process in a school nutrition program, SN directors would have a systematic **Method** to measure outcomes and objectively document program improvements for their customers.

Gap Analysis Process Identifies Needed Facility Design and Equipment Purchasing Resources for School Nutrition Directors and Their Role as Trusted Advisors

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Purpose/Objectives

Objectives of the gap analysis process were to validate the need to update two National Food Service Management Institute (NFSMI) facility design and equipment manuals, identify gaps in manual content, and propose new resources.

Method

Prior to an expert panel meeting, 30 school nutrition directors (SND), state agency representatives, facility design industry representatives, and appropriate NFSMI staff used a pre-meeting workbook to review the timeliness, relevancy, and usefulness of information in *The Guide to Purchasing Foodservice Equipment* and *The New Design Handbook for School Food Service*. Using a results-based integrated design process, participants were guided through an interactive progression using brainstorming and clustering techniques to identify the purpose; audience; and knowledge, skills, and attitudes necessary for SNDs to achieve their resource objectives.

Results

Results from the pre-meeting workbook revealed a 69% average agreement that information in *The New Design Handbook for School Food Service* required an update. For *The Guide to Purchasing Foodservice Equipment*, there was a 73% average agreement that information should be updated; additionally, there was a 89% average agreement that the content was relevant and should be in the new resource. Expert panel participants proposed a project title, purpose, definition of success, audiences, and **Methods** of delivery for the new resource. In order for SNDs to be well-informed and capable professionals when engaged with equipment/design projects in local districts, the panel identified a list of critical knowledge, skills, and attitudes.

Participants recommended a paradigm shift to reposition SNDs from a foodservice provider to Trusted Advisor.

Applications to Child Nutrition Professionals

Results supported the need for revising, expanding, and consolidating the two NFSMI manuals. Participants clearly wanted the manuals to be combined into one resource with three delivery **Methods** – a web-based support resource, a printed document with a face-to-face seminar, and just-in-time job aids. Participants emphasized a professional development component that would capture the vision of the Trusted Advisor role and increase SND integrity by improving their professional skills and image.

Cost Variables Associated With Producing and Serving a National School Lunch Program Snack in Afterschool Care Programs

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Purpose/Objectives

The National School Lunch Program (NSLP) reimbursable snack service was established to benefit school-age children and youths by providing a nutritious snack in qualified afterschool care programs. The purpose of this study is to identify costs associated with producing and serving a NSLP snack in afterschool care programs and to determine how those costs are distributed.

Method

The research design used a case study **Methodology** that included direct observation, systematic interviewing, and a review of school nutrition program records. On-site data collection occurred in four school districts during a one-day visit in each district. The case study districts had a combined total of 43 afterschool program snack sites. Data were organized, tabulated, and cross-checked from each site visit. A meal equivalent ratio (three snacks = one lunch) was used to assess comparable costs for a NSLP snack served in the case study districts. To determine the prorated cost of producing a snack that included food, labor, and all other expenses to the school nutrition program, a three-step calculation was made as follows: 1) all food and meal sales were converted to meal equivalents; 2) the cost to produce one meal equivalent was determined; and 3) the cost of a meal equivalent was divided by three to calculate the prorated cost of producing a snack.

Results

The number of snacks served in the case study districts ranged from an average of 74 to 750 per day. Although schools in the study calculated the cost of food for snacks, none tracked specific costs for labor, supplies, and general overhead associated with producing and serving an NSLP snack. The average daily food costs reported by the school districts ranged from \$0.32 to \$0.53 for snacks during the month prior to the site visit. School districts in the study used meal equivalent ratios to determine overall meal cost. By applying a meal equivalent ratio of three snacks equals one meal, the cost of producing and serving a NSLP snack ranged from \$0.71 to \$0.77 in the case study districts. School nutrition program directors indicated that factors such as

the number of students served, differing labor requirements, and whether or not supplies were needed in the snack service had an impact on the overall cost to produce and serve an NSLP snack. For example, a portion of the labor cost was absorbed by having the afterschool care program coordinator serve the NSLP snacks instead of school nutrition staff in three of the school districts.

Applications to Child Nutrition Professionals

Information in this case study research can be used to assist SNDs when planning and implementing an NSLP snack service to afterschool care programs. Calculations can be used to evaluate the overall financial efficiency of the NSLP snack service and assist in determining whether or not the costs of snacks exceed federal reimbursement rates.

Labor Productivity Standards in Texas School Foodservice Operations

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Purpose/Objectives

The efficient and productive use of labor can have a major impact on a school foodservice budget. Currently there are three predominant labor standards used in school foodservice operations: 1) meals per labor hour (MPLH); 2) labor cost as a percentage of revenue; and 3) servings per labor hour (SPLH). Productivity standards, however, are a very complex issue and there are many variables that influence the number of labor hours required by a foodservice operation. This study determines the most frequently used productivity standards in Texas school foodservice operations and ascertains directors' perceptions of how variables may affect labor productivity.

Method

A survey was conducted using a questionnaire that had been validated in a pilot test. The questionnaire was mailed to 200 randomly selected school foodservice directors in Texas. One hundred and five (52%) responses were analyzed using descriptive statistics and analyses of variance to determine associations between variables.

Results

The most common labor standard used by Texas foodservice directors was MPLH (76%). Both MPLH and labor as a percentage of revenue were utilized more frequently in larger districts. Meal equivalent (ME) conversions were most commonly defined by respondents as: 1) two breakfasts equaling one ME (43%); 2) \$2.00 yielding one ME (23%); and 3) three (15%) or four (16%) afterschool snacks equaling one ME. Of the twelve variables affecting labor, respondents felt that volume of meals produced was the most important. Onsite production versus a central kitchen operation, equipment available at each location, and the utilization of processed/convenient foods rather than scratch cooking also were considered to affect labor.

Applications to Child Nutrition Professionals

School foodservice directors can utilize productivity standards to provide valuable information when projecting labor needs, making decisions about productivity, and holding employees accountable for their use of time.

Financial Performance of Child Nutrition Programs in Kansas Rural School Districts

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Purpose/Objectives

The primary purpose of this study is to evaluate the financial status of child nutrition programs in Kansas rural schools districts using standard tools provided by the National Food Service Management Institute (NFSMI). A secondary purpose was to assess trends in financial performance over a five-year period.

Method

Kansas School Nutrition Programs Annual Financial Status Summary data for fiscal years 2001-05 were provided by Kansas School Finance in a Microsoft Excel spreadsheet. Rural districts, as defined by United States Department of Education guidelines, were categorized into those that received transfer monies and those that did not. The NFSMI financial management information tools were then used to calculate operating ratios and revenue sources by transfer/no transfer categories and for the five-year period.

Results

In Kansas, 162 school districts are classified as rural. The percentage of free and reduced meals in rural schools ranged from 35.3% to 41.1% over the five years. This is in comparison to the 33.3% to 38.6% for all school districts in Kansas during the same period. In 2003, only four rural districts required no transfer monies, whereas in 2005 twelve required no transfer monies. As a percent of revenue, all rural district's food and labor costs averaged 38.4% and 36.4%, respectively. In comparison to rural districts with transfer monies, there was a tendency for food costs to be slightly higher and labor costs to be slightly lower in districts with no transfer monies. Similarly, rural districts with no transfer monies tended to receive slightly more revenue from federal and state sources and sales. Since so few schools required no transfer monies, this study needs to be conducted on a larger scale.

Applications to Child Nutrition Professionals

Data provided in this study can serve as a benchmark for child nutrition professionals in rural school foodservice operations. Directors can consider the NFSMI financial management system as a reliable tool for analyzing financial performance.

School Professionals and Parents Identify Barriers to Placing Recess Prior to Lunch in Elementary Schools

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Purpose/Objectives

Studies have shown children who have recess prior to lunch instead of after lunch consume significantly more food and nutrients and waste less food. Yet, most elementary schools schedule

recess after lunch. Therefore, it is important to investigate barriers to recess placement prior to lunch.

Methods

Using focus group research **Methodology**, the National Food Service Management Institute (NFSMI), Applied Research Division, conducted a study to determine barriers to scheduling recess prior to lunch in schools participating in the National School Lunch Program (NSLP). After successful pilot focus groups meetings were conducted in a Midwest school district, additional focus groups seminars were performed with homogenous groups of school administrators, school nutrition personnel, teachers, and parents from three school districts in Colorado, Maine, and Kentucky. There were four focus group meetings, one for each participant group, held on the same day in each district, totaling 21-26 individuals per district.

Results

Barriers most frequently mentioned by administrators included: 1) preservation of morning hours for academics; 2) logistical concerns of supervision, hand washing, and cold weather clothing; 3) possible resistance by faculty, staff, and parents; and 4) tradition. Barriers most frequently mentioned by school nutrition personnel included: 1) supervision; 2) movement of children on and off playground; 3) scheduling; and 4) winter clothing. Barriers most frequently mentioned by teachers were: 1) logistics; 2) academic priorities; 3) willingness of administrators; 4) exercise; 5) weather; 6) scheduling blocks; and 7) tradition. The barriers most frequently mentioned by parents were: 1) logistics such as scheduling, staffing, and space; 2) winter clothing; 3) nutrition beliefs; 4) previous experiences with a family member; 5) tradition; 6) behavior; and 7) communication.

Applications to Child Nutrition Professionals

Results of this study provide useful information to school professionals, parents, and state agency personnel to effectively consider implementing and promoting recess prior to lunch.

HACCP Implementation in Childcare

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Purpose/Objectives

Directors of childcare operations should ensure the safety of food served to young children using the best possible techniques. Academic literature cites Hazard Analysis and Critical Control Points (HACCP) as a proactive **Method** that could decrease the number of outbreaks associated with food. HACCP was recently mandated for school foodservices but not for childcare operations. No research has been found examining HACCP implementation in childcare. The purposes of this study are to develop a HACCP-based food safety program for childcare and to determine the knowledge and attitudes childcare employees have toward food safety programs. Specific objectives include determining directors' level of interest in and knowledge of food safety programs, and calculating the time and cost requirements associated with developing and implementing a HACCP-based food safety program in their childcare facility.

Methods

A telephone focus group was conducted via conference call to determine school foodservice directors' interest in and knowledge of food safety programs. An HACCP-based food safety program, developed using resources available on the Internet, was implemented at eight facilities. Detailed records were kept for time and cost requirements in order to facilitate the development and implementation of an HACCP-based food safety program.

Results

Focus group participants agreed food safety was important; however, due to the extra paperwork involved with implementing an HACCP program, they were reluctant to add more tasks to the staff's responsibilities. Pre- and post-knowledge scores showed an improvement in positive attitudes toward HACCP programs. Time and cost requirements for program implementation were minimal. Participants agreed they would continue the program.

Applications to Child Nutrition Professionals

Due to other agency requirements, accredited childcare operations already have many policies and procedures in effect that are similar to those included in HACCP programs. Existing documentation require only minor adjustments to comply with HACCP record keeping practices. Time and cost commitments will fluctuate, as they are contingent on the type of foodservice utilized.

Overcoming Barriers to Participation in the Summer Foodservice Program

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Purpose/Objectives

The Summer Foodservice Program (SFSP) was established in 1968 to provide nutritious meals to low-income children when school is not in session. Each SFSP site is operated by a sponsor who is financially responsible for the operation of the program and assures that all protocols associated with the program are followed. The Simplified Summer Food Program was initiated in 2001 to simplify the financial and administrative paperwork associated with the SFSP. Although the Simplified Summer Food Program has increased participation in the SFSP, less than 20% of eligible children participated in the program in 2004. Therefore, the purpose of this research is to evaluate the benefits and barriers related to the operation of and participation in the program.

Method

In Phase I, 21 telephone interviews were conducted with state agency child nutrition program directors and SFSP sponsors. Questions focused on benefits and barriers related to sponsor participation and highlighted factors affecting the involvement of eligible children. Based upon results from the telephone interviews, a questionnaire was developed and sent to 803 SFSP sponsors in the southeast region during Phase II. Descriptive statistics were used to evaluate the responses from the participants.

Results

A total of 316 surveys (39.3%) were returned and used in data analysis. Sponsors felt that the large volume of paperwork required was the primary reason why an individual would not want to start a program. In addition, they stated that having adequate staff to help with meal production was the most crucial barrier in starting a program. In regards to participation by eligible children, sponsors agreed that a lack of transportation was the primary reason for low participation rates.

Applications to Child Nutrition Professionals

In order to enhance the number of individuals sponsoring SFSP sites, more resources need to be made available. As many sponsors are not utilizing the Simplified Summer Program, training must be enhanced to get more sponsors enrolled. To increase participation by eligible children, sponsors recommend utilizing alternative means of getting meals to the families, such as camps. Most importantly, ways to enhance community connections should to be developed to increase participation of sponsors, as well as children, in the program.

School Nutrition Directors Speak Out Regarding Challenges to the School Breakfast Program

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Purpose/Objectives

The purpose of this study is to ascertain the perspectives of school nutrition (SN) directors regarding perceived barriers to student participation in the School Breakfast Program (SBP) and determine their need for resources to support the program.

Method

Three focus group discussions were conducted with a total of 24 elementary SN directors recruited from Utah, New Jersey, and Illinois with low SBP participation. Discussion transcripts were analyzed using a systematic process and Ethnograph v5.0 qualitative analysis software.

Results

SN directors identified school staff support, student preferences, meal time, bus schedules, and parent influence as critical barriers to student participation in the SBP. Directors acknowledged challenges in operating SBPs due to resistance from school professionals for a variety of reasons. Additionally, they believed many students chose to skip breakfast at school, preferring to sleep-in, play with friends, or not eat early in the morning. SN directors also were concerned about short meal periods and school busses arriving too late, which hindered student participation. SN directors indicated that many parents preferred to feed their children at home, while some parents preferred them not eat school breakfast due to a poor perception of the SBP. Resources identified by all three SN director groups as necessary to the operation of SBPs were: 1) legislative support mandating breakfast programs, 2) development of a variety of food items that comply with the five menu planning approaches, and 3) access to “in-class” breakfast program development material.

Applications to Child Nutrition Professionals

SN directors are encouraged to develop a formalized marketing plan that addresses the benefits of SBPs, which could initiate discussions among school professionals to help remove barriers to SBP participation. Food manufacturers are advised to increase their efforts to produce healthy, convenient, packaged breakfast foods that are appealing to students and comply with SBP regulations.

The Impact of Hurricane Katrina on Mississippi Coastal Child Nutrition Programs

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Purpose/Objectives

When the most catastrophic natural disaster in United States history occurred on August 29, 2005, child nutrition professionals from the affected areas were faced with the biggest challenge of their career. In order to document and analyze the impact of Hurricane Katrina on Mississippi Gulf Coast Child Nutrition Programs (CNP), a case study was conducted. Objectives of this study were to identify disaster preparation prior to the storm, post-disaster challenges and program solutions, and ways to better prepare CNPs for future catastrophes.

Method

CNP directors representing six school districts along the coast of Mississippi participated in the study. Directors completed a data information sheet that included enrollment, participation, and other specific details about their districts prior to an onsite interview. Each participant was asked questions that addressed disaster planning and recovery. Participants' responses were reviewed individually as case studies then compared in order to identify trends.

Results

Results of the case studies revealed: 1) even though the school districts had emergency-preparedness plans, they were not specific to CNPs; 2) several districts reported significant amounts of food spoilage due to lack of food distribution procedures; 3) directors were not prepared for the loss of communication, devastation of cafeterias, and loss of CNP records; and 4) the meal accountability requirements of USDA were overwhelming due to a lack of computer support. Even with these barriers, all of the CNP directors were successful in getting their programs operational within a few short weeks.

Applications to Child Nutrition Professionals

In the future, it is crucial that CNPs implement specific disaster plans and maintain a backup system for all records. USDA could assist by providing free meal waivers to all children in devastated areas for an extended period of time. No one was prepared for the consequences of this natural disaster. Hopefully, child nutrition professionals can use this information to be better prepared for the possibility of future disasters.