

From Policy to Practice: Parent Perceptions of the 2010 Federal School Lunch Mandate

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ABSTRACT

Purpose/Objectives

The purpose of this study was to investigate parent awareness and perceptions of changes to the National School Lunch Program (NSLP) implemented as a result of the Healthy, Hunger-Free Kids Act (HHKA) of 2010.

Methods

An online survey of parents of school age (K-12) children in a Midwestern state was conducted (n = 2,189). The survey collected information on the grade of oldest child and child's participation in school lunch, and measured parental awareness and perceptions. Open-ended responses were coded by three coders. Chi-square tests, t-tests, and analysis of variance (ANOVA) were conducted to examine possible differences in parents' perceptions according to child's grade, participation in school lunch, and school district size.

Results

Most parents (84%) were aware of the school lunch changes, and, of those, 75% reported their child had discussed the changes with them. Parents with an oldest child in grades K-8 had significantly more positive perceptions of school meals than did parents with an oldest child in grades 9-12. Parents reported mixed perceptions about school lunch. Some parents indicated their child ate more fruits (15.7%) and vegetables (11.6%) since the meal changes.

Applications to Child Nutrition Professionals

Parents' awareness and concern about school meals are high. Future governmental and school efforts to promote school lunch should include communication components that provide parents with accurate information and feedback opportunities. At the local level, district professionals can harness family support for school meals in ways tailored to the unique contexts of their school community.

Keywords: nutrition policy; school meals; parents

INTRODUCTION

In December 2010, the Healthy, Hunger-Free Kids Act (HHFKA) was signed into law, mandating major revisions to the National School Lunch Program's (NSLP) nutrition standards based on the latest edition of the *Dietary Guidelines for Americans* (U.S. Department of Agriculture [USDA] Food and Nutrition Service [FNS], 2012; USDA-FNS, 2013). Implementation of the reforms began with the 2012-2013 school year, and initial anecdotal reports from national, state, and local media outlets indicated significant pushback against the new school meal standards from parents, children, and other members of the school community.

Specifically, many parents reacted negatively from concerns that the school meals now being served to their children were inadequate and unappealing (Park, 2012; Fluker, 2012). Recent national polling data reveals that the majority (72%) of parents do support policy measures requiring schools to meet these updated nutrition standards (Hart Research Associates/Ferguson Research, 2014), indicating that parent attitudes toward the policy may have softened since its initial enactment.

However, implementation of the reforms has not yet been widely studied at the state and local levels, and discrepancies may exist between perceptions of the federal policy and local practices. While parents may support a healthier school food environment in principle, it is important to understand barriers and facilitators to support at the local level in order to engage parents, who are critical stakeholders in the area of childhood nutrition.

Previous studies have more generally assessed the impact of nutrition policy changes on the school nutrition environment, and observed barriers in policy implementation at the local level. For instance, studies on statewide policies restricting the sale of competitive foods and beverages in Pennsylvania and California schools show that food service directors and staff have difficulty interpreting the standards and implementing the policies (McDonnell, Probart, Weirich, Hartman, & Bailey-Davis, 2006; Samuels, Hutchinson, Craypo, Barry, & Bullock, 2010). A recent (2014) study from the U.S. Government Accountability Office (GAO) found that school food authorities nationwide had faced significant challenges related to increased food costs, waste, and menu planning and revealed that participation in school lunch had declined by one million students from the 2010-2011 through the 2012-2013 school years for reasons largely attributed to the changing guidelines (GAO, 2014).

The central objective of the present study was to assess parental awareness and perceptions of the NSLP and the recent school lunch changes effected by the HRFKA in a Midwestern state. In order to gauge concerns related to implementation at the local level, this study specifically sought to elicit parental attitudes toward school meal reforms in their district. Though recent national polling data has assessed factors related to parent support for the new USDA nutrition standards at the federal level (Hart Research Associates/Ferguson Research, 2014), poll questions were oriented to reflect hypothetical support for school meal standards and healthier school meals. There is scant research available to help school districts understand and navigate parent positions on specific local implementation practices.

Moving forward, the collective voice of parents has great potential to support the movement toward healthier eating practices in schools. By examining specific perceptions regarding school lunch, future efforts to harness parent support for and involvement in local implementation of policy initiatives might find greater success. The data reported here represent part of a larger study designed to provide the basis for a state-wide communication intervention to help school districts reach parents and families about school meals.

METHODOLOGY

The survey instrument was designed to identify parental perceptions about topics such as the role of school lunch in childhood nutrition and the delivery of the school lunch program in their

child's school. Researchers at a university policy center and the state Department of Education jointly developed the electronic survey instrument using Qualtrics[®] survey software. The university's Institutional Review Board approved the study. The survey was fielded from March 1, 2013 to March 18, 2013.

Participants

Participants (n = 2,189) were parents recruited from elementary, middle, and high schools across Iowa. A request to distribute the survey was sent to every school district in the state. Schools were asked to distribute the online survey via email, on the school website, and/or as information sent home with the students. Parents were encouraged to disseminate the survey themselves to other parents; this method of snowball sampling increased the reach of the survey. Only parents of students (grades K-12) enrolled in the state were included in the survey. A total of 984 participants reported that their oldest school-aged child was in grades K-8, while 773 reported that their child was in grades 9-12; the remaining participants declined to report their child's grade level.

Instruments

The survey asked parents of school-aged children in Iowa to answer a series of questions intended to assess perceptions surrounding the school lunch program at their oldest child's school. Respondents were directed to consider their oldest school-aged child in order to mitigate the impact of mixed responses resultant from the presence of multiple school-aged children in the household. The final 28-item survey instrument included two demographic queries to identify the grade level and school district of the respondent's oldest school-aged child. The survey posed questions about current school lunch practices, other health-related behaviors, awareness of school lunch changes and parent perceptions toward the recent school lunch changes. The survey included close-ended questions as well as open-ended questions that allowed parents to provide more in-depth information.

Data Analyses

Descriptive statistics were calculated and bivariate analyses conducted using SPSS version 21 (IBM Corporation, 2012). Chi-square tests, t-tests, and analysis of variance (ANOVA) were performed to examine possible differences between parents who were reporting on children in grades K-8 and parents reporting on children in grades 9-12. The researchers compared the responses of parents who reported that their child ate school lunch all 5 days the previous week and those who reported their child ate school lunch fewer than 5 days the previous week. Additionally, the researchers assigned school districts to one of three categories based on enrollment: small (fewer than 1,000 students), medium (1,000–2,499) or large (2,500 or greater), and ran tests to examine differences by school district size. Using these cutoff points to categorize school districts by size had precedent in a previously published study which used the distribution of students to categorize school districts by enrollment in Iowa (Lu & Larsen, 2007).

The open-ended responses were coded using a content-driven qualitative coding process. Codes were generated by three coders who read the open-ended responses; two of the coders then coded all of the open-ended responses, and the third coder ruled on any discrepancies.

RESULTS AND DISCUSSION

Demographics and School Lunch Participation

The 2,189 parents who participated in the survey represent 139 of the 348 public school districts (39.9%) and 11 of the 175 private schools (6.3%) in Iowa. The grade levels represented ranged from kindergarten to 12th grade, with a mean level in the 7th grade (SD ± 3.72). The most frequently reported grade was 10th (n=223). One hundred thirty parents (8.0%) reported that their child participated in the free or reduced lunch program.

The majority of parents (62.3%) reported that their child ate school lunch every day in the last week while 28.2% of parents reported that their child ate lunch between 1 and 4 days in the last week, and 9.5% of parents reported that their child did not eat school lunch any day in the last week. The most commonly reported reasons for eating school lunch were: child liking school lunch (26.2%), lack of time to pack a lunch from home (25.3%), child's friends eating school lunch (25.3%), and the dollar value of school lunch (18.6%).

Awareness of and Communication about the New School Meal Patterns

Parents reported high levels of communication with their child about school lunches. Nearly 17% of parents talked with their child daily about school meals while 28.6% had such communication with their child most school days, 28.5% once or twice a week, and 22.2% once or twice a month. Just 3.9% of parents reported never talking about school meals with their child.

The majority (84%) of parents reported awareness of the recent changes to the school lunch program at their child's school. Of the parents who reported being aware of the recent changes, 75% said their child had talked to them about the changes. Parents' open-ended responses about these conversations revealed that the most commonly discussed topic was the smaller portion sizes of the new school lunches. Parents reported that their children complained about an insufficient amount of food being served at lunch, especially if the child had sports practice or other activities after school. Parents also indicated that their children were forced to take foods they found unappealing and would not eat, resulting in large amounts of discarded food. Other common topics of discussion reported included: the poor quality and taste of school food, limited availability of flavor enhancers (e.g., salt, condiments), lack of non-whole grains, lack of desserts, and limited variety of food choices.

Although many parents indicated that their child had raised concerns about the new school lunches, not all of the reported feedback from children was negative. Some parents reported that their children noted improvements to school lunch, especially with regard to the increased availability of fresh fruits and vegetables. Parents also reported that some children who initially disliked the new lunches had eventually adjusted to the changes.

Parent Perceptions of School Meals

Nearly two-thirds (65.3%) of the parents agreed that the purpose of school meals is to provide children with healthy food. A little over half (54.6%) agreed that school meals exist to ensure children have something to eat during the day. Almost 40% agreed that the purpose of school lunch programs is to set an example of a healthy meal for children. Almost one-third (32.1%)

said that school meals exist to help families who are struggling financially to feed their children, and 13.2% indicated that school meals exist to help families who lack the time to feed their children.

Parents also reported on how necessary they felt the changes to school lunch had been. Only 12.5% said that the changes were *not needed at all*, and 21.5% said the changes were *not that needed*, while 23.6% said the changes were *needed very much*. Just over 30% of respondents indicated that the changes were *needed a little*, and 12.0% were neutral.

When asked if and how school meals had changed since they were in school, 45.8% of parents reported that less food is served at school meals now than when they were in school. Nearly 37% reported that if they were a child now, they would be less likely to eat school meals, and 34.2% said that school meals look less appealing now than when they were in school. In response to an open-ended query, many parents expressed nostalgia for the “home-cooked” school lunches of their childhood and complained that the food served at their child’s school was processed and pre-packaged. Despite this sentiment, 30.5% of parents felt that school meals have become healthier since they were in school. Just 7.9% of parents felt that school meals today are less healthy than during their school days.

In response to an open-ended question, parents listed specific foods that their children said they miss having as options at school lunch. The most commonly missed items are desserts, homemade items, condiments, and pizza. Children miss the option of buying an a la carte sandwich if they do not like what is being served or are not full after eating their lunch. According to parents, children would also like school meals to include more meat, regular French fries instead of sweet potato fries, and fewer whole grains.

In response to a related open-ended question, parents listed foods they would like their child’s school to offer. An overwhelming majority of parents reported wanting more fresh fruits and vegetables, including access to salad bars with a wider variety of fresh ingredients. Parents generally seek more variety in menu items and want kitchen staff to make the school meals from scratch using natural, unprocessed ingredients. Lastly, parents want their children to have access to larger portions of the healthier components of the meal.

Parent Expectations

Table 1 illustrates parents’ responses to a series of questions about their expectations of school lunch. Parents were asked to agree or disagree with statements about the benefits and importance of components of school lunch on a 1-5 least-to-most Likert scale. In general, parents reported high agreement for several measures related to the importance that certain food groups are available at school meals, such as fresh fruits and vegetables ($M=4.58$), protein-rich foods (4.60), and whole grain bread products (4.13). Parents also agreed that it is important that school meals are not pre-processed or pre-packaged ($M=4.07$).

Parents ascribed somewhat less importance to the role of healthy school meals in making their child healthier ($M=3.38$), stronger (3.29), better at sports (2.84), or perform better academically (3.40). Parents disagreed that their oldest child receives enough to eat at school meals ($M=2.30$).

However, parents were somewhat in agreement that school meals are healthy ($M=3.44$) and that the recent changes to school meals were needed (3.31).

Table 1.
Parental Perceptions of the Importance of Certain Foods and the Benefits of School Lunch Participation

Statement	n	M	SD
It is important that protein-rich foods are available ^a	1773	4.60	0.69
It is important that fresh fruits and vegetables are available ^a	1772	4.58	0.73
It is important that whole grain bread products are available ^a	1766	4.13	1.06
It is important that school meals are NOT preprocessed or prepackaged ^a	1766	4.07	1.09
School meals are healthy ^b	1735	3.44	0.97
Healthy school meals will help improve my oldest child's school performance ^b	1736	3.40	1.08
Eating healthy school meals will make my oldest child healthier ^b	1719	3.38	1.09
Recent changes to school meals were needed ^c	1768	3.31	1.37
Eating healthy school meals will make my oldest child stronger ^b	1730	3.29	1.09
Eating healthy school meals will make my oldest child better at sports ^b	1734	2.84	1.11
My oldest child gets enough to eat at school meals ^b	1733	2.30	1.25

^a1 = not at all important...5 = extremely important

^b1 = strongly disagree...5 = strongly agree

^c1 = not needed at all...5 = needed very much

Perceptions of School versus Home Nutrition Environments

The overwhelming majority of parents indicated confidence in their ability to distinguish whether or not food was healthy for their child. Ninety one percent of parents selected *strongly agree* or *agree* in response to the statement “*I can tell if food is healthy for my child.*” When asked whether their child gets a more nutritious meal at home or at school on a typical day, 46.4% of parents responded *at home* compared with the 5.20% of parents who responded *at school*; 40.5% reported their child gets an equally nutritious meal at home and at school.¹

Some parents (15.7%) reported that their oldest child now eats more fruits at home than he or she did before the start of the school year. Fewer (11.6%) reported that their oldest child eats more vegetables at home compared to before the school year. However, more than 80% of parents reported that their oldest child's fruit and vegetable consumption at home has not changed since the implementation of the new lunch requirements.

¹ Only 7.9% of parents indicated their child *never* or *rarely* ate school lunch; these parents were not asked to compare the nutrition of home versus school meals.

In response to the statement “*The food service staff at my child’s school system seems well-informed about school meal nutrition,*” nearly half the parents indicated support, with 17.2% strongly agreeing and 32.1% agreeing. However, 40.6% of parents neither agreed nor disagreed with the statement.

Comparisons

The data were analyzed to determine if parental perceptions of school lunch vary based on the variables of age of child, level of child’s participation in school lunch, and school district size (Tables 2, 3, and 4). Parents of younger children (grades K-8) assessed school lunch more positively than did parents of older children (grades 9-12). The parents of these younger children were more likely to agree that school meals were healthy and improved children’s health, strength, athleticism, and school performance (Table 2). Parents of older children were less likely than parents of younger children to perceive that the changes had been needed and that their child was getting enough to eat at school. Regardless of their children’s ages, parents whose children ate school lunch every day in the previous week were more likely to assess school lunch as healthy and beneficial, compared to parents whose children did not eat school lunch as often (Table 3). There were few differences among small, medium and large school districts (Table 4). However, parents from larger school districts expressed more support for the changes, reporting that their child receives enough to eat at school.

Table 2.
Comparison of Differences in Parent Perceptions by Grade of Oldest Child

Statement	Grades K-8	Grades 9-12	<i>t</i>	<i>p</i>
	<i>M(SD)</i> (<i>n</i> = 984)	<i>M(SD)</i> (<i>n</i> = 773)		
Recent changes to school meals were needed ^a	3.48 (1.33)	3.08 (1.38)	5.82	<0.001
School meals are healthy ^b	3.50 (0.96)	3.35 (0.98)	3.08	0.002
Eating healthy school meals will make my oldest child healthier ^b	3.51 (1.05)	3.21 (1.11)	5.31	<0.001
Eating healthy school meals will make my oldest child stronger ^b	3.42 (1.05)	3.10 (1.10)	5.81	<0.001
Eating healthy school meals will make my oldest child better at sports ^b	2.89 (1.10)	2.77 (1.14)	2.18	0.029
Eating healthy school meals will help improve my oldest child’s school performance ^b	3.51 (1.05)	3.26 (1.12)	4.66	<0.001
My oldest child gets enough to eat at school meals ^b	2.51 (1.27)	2.02 (1.17)	7.81	<0.001

^a 1=not needed at all...5=needed very much

^b 1=strongly disagree...5=strongly agree

Discussion

This study presents a unique opportunity to understand parents’ perspectives on recent changes to school meals at the local level. School districts need parents to help children adapt to the new

meal patterns, engage schools in making further healthful changes, and incorporate some of these changes into meals served at home. Key findings of this study are: (1) parents are highly involved in and aware of school meals; (2) parents and children talk regularly about school lunch; (3) parents rely on school meals to feed their child during the day; (4) students appear to have made small changes in their eating habits as a result of changes in school meals; and (5) there are differences in the impact of these school lunch changes on older versus younger students.

Table 3.
Comparison of Differences in Parent Perception by Level of Child’s School Lunch Participation

Statement	Ate school lunch for last 5 days	Ate school lunch fewer than 5 days	<i>t</i>	<i>p</i>
	<i>M (SD)</i> (<i>n</i> = 1,234)	<i>M (SD)</i> (<i>n</i> = 747)		
Recent changes to school meals were needed ^a	3.28 (1.36)	3.36 (1.38)	-1.066	0.287
School meals are healthy ^b	3.52 (0.95)	3.29 (0.99)	4.730	<0.001
Eating healthy school meals will make my oldest child healthier ^b	3.44 (1.08)	3.27 (1.09)	3.092	0.002
Eating healthy school meals will make my oldest child stronger ^b	3.36 (1.09)	3.18 (1.08)	3.368	0.001
Eating healthy school meals will make my oldest child better at sports ^b	2.91 (1.12)	2.73 (1.09)	3.348	0.001
Eating healthy school meals will help improve my oldest child’s school performance ^b	3.47 (1.07)	3.30 (1.11)	3.193	0.001
My oldest child gets enough to eat at school meals ^b	2.28 (1.27)	2.33 (1.22)	-0.830	0.407

^a 1=not needed at all...5=needed very much

^b 1=strongly disagree...5=strongly agree

Parents in this survey reported relying on school lunch to feed their child most days of the week. This finding indicates that school lunch plays an important role in children’s nutrition and in family life. Parents generally place a high value on healthy eating and other behaviors promoting their children’s health. Recent national polling data indicates that more than seven in ten parents support current nutrition standards for school meals, and four in five parents (80%) are concerned with the state of children’s health in the United States (Hart Research Associates, 2014).

However, attitudes toward federal policy may not reflect those toward local practices, and the findings of the present study suggest a discrepancy between what parents view in theory as “healthy” school meals and the actual implementation of the HHKA reforms in their local schools. For example, parents commonly expressed a desire to see more fresh fruits and vegetables served in school lunches, but cited the presence of canned or frozen produce (which

typically feature the same nutritional benefits as fresh vegetables and fruits) as unrepresentative of a healthy school lunch. It is clear from the present study that many parents are not satisfied with the fruits and vegetable offerings at their child's school.

Table 4.
Comparison of Differences in Parent Perceptions by School District Size

Statement	Small (<1,000 students)	Medium (1,000- 2,499)	Large (≥2,500 students)	F	p
	<i>M</i> (<i>SD</i>) (n = 503)	<i>M</i> (<i>SD</i>) (n = 1,195)	<i>M</i> (<i>SD</i>) (n = 161)		
Recent changes to school meals needed ^a	3.15 (1.37)	3.32 (1.37)	3.71 (1.33)	9.454 ⁺	<0.001
School meals are healthy ^b	3.42 (0.97)	3.45 (0.96)	3.37 (1.06)	0.420	0.657
Eating healthy school meals will make my oldest child healthier ^b	3.39 (1.08)	3.37 (1.10)	3.41 (1.07)	0.120	0.887
Eating healthy school meals will make my oldest child stronger ^b	3.30 (1.07)	3.27 (1.11)	3.40 (0.99)	0.867	0.420
Eating healthy school meals will make my oldest child better at sports ^b	2.88 (1.10)	2.83 (1.13)	2.89 (1.00)	0.518	0.596
Eating healthy school meals will help improve my oldest child's school performance ^b	3.41 (1.06)	3.37 (1.11)	3.58 (0.97)	2.247	0.106
My oldest child gets enough to eat at school meals ^b	2.18 (1.22)	2.29 (1.25)	2.79 (1.28)	12.732 ⁺⁺	<0.001

^a 1=not needed at all...5=needed very much

^b 1=strongly disagree...5=strongly agree

⁺ Tukey's HSD tests indicated that respondents from large school districts reported statistically significantly higher means than those from medium (p=0.004) or small (p<0.001) districts.

⁺⁺ Tukey's HSD tests indicated that respondents from large school districts reported statistically significantly higher means than those from medium (p<0.001) or small (p<0.001) districts.

The experiences of older students appear to differ significantly from those of younger students. Parents of younger students generally gave favorable assessments of school lunch, while parents of their older counterparts were less likely to perceive that school lunch changes had been needed and that their child was getting a sufficient amount of food at school lunch. This discrepancy in attitudes between parents of younger and parents of older children might stem from the perception that older students have increased nutritional and metabolic needs due to larger physical size or more intense levels of participation in athletics. Additionally, older students have the most experience with the previous school meals, which may make it more difficult for them to adjust to the changes.

Limitations

There are several limitations of this study to consider when interpreting the results. First, convenience sampling and the use of an online survey have the potential to introduce bias. Fortunately, the sample represents more than one-third of the public school districts in the state, with proportional representation from urban and rural districts and districts of different sizes. Furthermore, the large sample size (n=2,189) of this survey has the potential to introduce type I error in which comparisons between groups may reach statistical significance even for small actual differences in means. The results of statistical tests should be interpreted with caution for this study.

Second, parents without online access would not have been able to complete the survey. This limitation may have led to the exclusion of some parents from lower socioeconomic backgrounds. In Iowa during the 2012-13 school year, 27.7% of school lunch participants received free lunch and 5.3% received lunch at a reduced price (School Nutrition Association, 2013); however, only 8% of respondents for the present survey reported that their child participated in the free or reduced lunch program. Nevertheless, recent studies have shown that Internet access among lower-income groups is on the rise, narrowing the so-called ‘digital divide’ (Zickuhr & Smith, 2012). Additionally, an increasing number of school districts in Iowa are adopting paperless communication with parents, indicating that many parents are already expected to use the Internet for matters related to their child’s school. So while the proportion of parents reporting free or reduced-lunch status was low in this study relative to the actual statewide figures, this may be attributable to other factors—for example, stigma or literacy barriers-- rather than solely to the online format of the survey.

In addition, parents with strong opinions about school lunch may have been more likely to respond than other parents. Parents also reported only on the experiences of their oldest child, resulting in a disproportionate representation of high school students in the sample. Thus, the survey results may not adequately represent the experiences of elementary age students.

CONCLUSIONS AND APPLICATION

The data gathered from this formative research helped to inform the development of a statewide social marketing campaign to encourage parents to support the recent school lunch changes, advocate for further revisions to school lunch, and incorporate some of these healthful changes into feeding practices at home (<https://www.educateiowa.gov/pk-12/nutrition-programs/school-meals>). Identifying ways to harness parent enthusiasm and interest in school meals continues to be an important, yet often overlooked, step in school nutrition programs (O’Dougherty, Story, & Lytle, 2006). At the local level, school districts can utilize such state- or federally-developed resources to promote school meals in conjunction with tailored efforts to engage families in their school communities. District administrators and food service directors are uniquely equipped to understand the specific barriers and facilitators to parent support for school meals in their jurisdiction. The findings of this study have implications for practice at the local level, as outlined below.

Parents in the current study also expressed concern that their children were not receiving enough food, or they reported that their children complained of being hungry. These findings are similar

to the findings of focus groups conducted prior to the HHFKA with African American and Latino parents (O'Dougherty, Story, & Lytle, 2006). Parents in these focus groups reported that their children were hungry following school meals because they did not eat the entire meal. Although the present study indicates that parents are aware of school lunch changes and routinely discuss the lunches with their children, it is not clear whether parents were accurately informed about topics like school lunch financing or specifics about the federal mandate. Taken together, these past and current findings suggest the need for enhanced communication between school staff and parents.

First of all, it is not clear how parents derive their perceptions of and attitudes toward school meals. It is critical for parents to receive accurate and persuasive evidence in order to dispel myths or misperceptions about school meals and enhance their capacity to provide feedback. Parents need timely and comprehensive information about changes to meals at their child's school; specifically, parents need to be informed of the nature of the changes, why they are important or necessary, and what such federal policy initiatives mean in practice for their child's school meals. In addition, parents should receive information on how the school meals program is funded and the true cost of school meals in their district (see <https://www.educateiowa.gov/pk-12/nutrition-programs/school-meals> for materials from the present campaign that address this information).

At the local level, parents also need to know how their school district is implementing the new changes and how families can get involved and benefit from making these changes. Districts can facilitate the distribution of this information via resources such as fact sheets and parent newsletters or can encourage more interactive exchanges at parent-teacher association meetings or among school wellness committee members. Based on the high volume of respondents to the present survey, it is clear that parents are willing and eager to provide input on school meals; districts may also investigate ways to elicit parent feedback throughout the year by using surveys, polls, or school forums.

High levels of communication between parents and children about school meals were reported in this study; such communication needs to be better understood in order to utilize these open channels to promote healthier feeding practices at school and home alike. Parents can support children in making better decisions about the food they eat at school, and children can encourage parents to incorporate the healthy food they are eating at school into home meals. Future research in this area could involve documenting and analyzing these conversations. School staff can facilitate this communication at the local level by encouraging children to start conversations with their parents about school meals, or by involving parents in school feeding practices. Examples of school-level efforts might include 'bring your parent to lunch' days, or special promotional events and activities centered on school lunch, like asking parents to submit favorite 'healthy' recipes or ideas for a school-wide competition.

Additionally, results from the present study suggest that older students (grades 9-12) may have a more difficult time than younger students (grades K-8) acclimating to changes in school meals. When attempting to engage families, districts may need to employ tailored strategies for different grade levels. Since older students may protest the elimination of foods to which they were previously accustomed, district food staff can attempt to incorporate healthier versions of these

foods that meet the new standards into school meals. For younger students who have less previous experience with school meal patterns, the adjustment may simply involve drawing on practices that are popular among students of all ages, such as salad bar options.

Eating habits and food preferences are highly personal in nature, and parents draw upon their own experiences and knowledge when it comes to issues of school meals, specifically, and nutrition, in general. Parents' nostalgia for the school meals of their childhood was also a significant finding of a previous study (O'Dougherty et al., 2006). In focus groups, parents reported that the meals served to their children were not as appealing as the school meals they had enjoyed during childhood. Leveraging this nostalgia might help food service directors engage parents in improving school meals and encouraging children to make healthy choices. Although logistical constraints may prevent food service staff from true 'home-cooking' or eliminating the use of pre-packaged or processed foods, cultivating a personal touch during school meals may attract further parental support. For instance, food service staff may benefit from circulating the lunch room and engaging with students during mealtimes.

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