



**Action for Healthy Kids.**

# **Helping Youth Make Better Food Choices**

**Perceptions, Barriers  
and Promising Approaches  
Among Nutrition,  
Health and Public Health  
Professionals**

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**An Action for Healthy Kids Research Report  
March 2008**

## Summary of Findings

### Background

In July-September 2007, Action for Healthy Kids conducted a national survey of nutrition, health and public health professionals who work with children and youth, regarding their experiences with the nutrition recommendations prescribed by the 2005 *Dietary Guidelines for Americans*, as well as barriers and opportunities in promoting to youth the Guidelines' suggested "Food Groups to Encourage" (fruits, vegetables, whole grains and low-fat or fat-free milk and milk products).<sup>1</sup> While the 2005 *Dietary Guidelines* make it clear that youth need to consume more fruits, vegetables, whole grains and low-fat/fat-free dairy to meet recommended minimums for good health, overall less than 1 percent of American children and adolescents consume the minimum number of recommended servings from all food groups. This has led to low dietary intake of calcium, potassium, fiber, magnesium and Vitamin E.<sup>2</sup>

Across the nation, schools have attempted to address their students' nutritional deficiencies through a variety of wellness initiatives. Significant strides have been made in removing foods of minimal nutritional value from the school environment. There also has been some progress in improving the nutritional quality of foods served in school cafeterias, a la carte lines, vending machines, school stores, snack bars and canteens. Yet, for optimal health, students must make better food choices independently both inside and outside of school.

### Research Objectives

The purpose of this Action for Healthy Kids research project was to collect baseline data from health, public health and nutrition professionals on the front lines of the effort to counsel and support youth in making food choices consistent with the 2005 *Dietary Guidelines*. Survey respondents provided vital information on:

- Their personal perspectives on the current nutrition recommendations outlined in the 2005 *Dietary Guidelines' Food Groups to Encourage*.
- The barriers they have encountered in helping children and youth to make more healthful food choices.
- Their individual preferences and habits in recommending food groups when assisting youth to make better food choices.
- Their perceptions about why youth do not make better food choices—and the greatest potential influencers in changing these conditions.
- Their own "best practice" approaches and strategies for helping youth make food choices in keeping with the 2005 *Dietary Guidelines*.

The data gathered will be used to inform Action for Healthy Kids' work to support schools in their wellness efforts—particularly as part of an ongoing initiative in collaboration with the U.S. Department of Health and Human Services, the National Institutes of Health's "We Can!" program, and the U.S. Department of Agriculture, that aims to help youth, especially minority youth, make better food choices—and also as a touchstone for later evaluations.

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<sup>1</sup> "Food Groups to Encourage," 2005 *Dietary Guidelines for Americans*, from the U.S. Departments of Health and Human Services and the U.S. Department of Agriculture: [www.health.gov/dietaryguidelines/dga2005/document](http://www.health.gov/dietaryguidelines/dga2005/document).

<sup>2</sup> Munoz KA, Krebs-Smith SM, Ballard-Barbash R, Cleveland LE. Food intakes of US children and adolescents compared with recommendations. *Pediatrics*. 1997;100:323-329. Erratum in: 1998;101:952-953.

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### **What are the Dietary Guidelines for Americans?**

The *Dietary Guidelines for Americans* are published every five years by the U.S. Departments of Agriculture and Health and Human Services to provide authoritative information about how good dietary habits can promote good health and reduce risk for major chronic diseases. Based on the latest scientific evidence and serving as the basis for all federal food and nutrition education programs, the 2005 Dietary Guidelines give advice for Americans ages two years and older on choosing a nutritious diet, maintaining a healthy weight, achieving adequate exercise and keeping foods safe to avoid food-borne illness.

The 2005 *Dietary Guidelines* indicate that increased intakes of fruits, vegetables, whole grains and low-fat or non-fat milk and milk products are likely to have important health benefits for most Americans:

- Increased consumption of fruits and vegetables can reduce the risk of chronic diseases, including stroke, other cardiovascular diseases, type 2 diabetes and some cancers.
- Diets rich in foods containing fiber, such as fruits, vegetables and whole grains, may reduce the risk of coronary heart disease.
- Adequate consumption of low-fat or non-fat dairy foods can reduce the risk of low bone mass throughout the life cycle. The consumption of milk products is especially important for children and adolescents who are building their peak bone mass and developing lifelong habits.

## Methodology

Action for Healthy Kids retained MMS Education, a national education consulting and research company, to conduct an online survey, which was active from July through September 2007. The following national Action for Healthy Kids Partner organizations invited their full membership or segments of their membership to participate in the survey through an e-message—via a direct e-mail blast or a write-up and/or link in their regular member e-newsletter:

- American School Health Association (nurses and Food and Nutrition Council members only)
- Association of State and Territorial Public Health Nutrition Directors (state directors and Fruit/Vegetable Council members only)
- National Association of Pediatric Nurse Practitioners (most members)
- National Assembly on School-Based Health Care (most constituents)
- National Association of School Nurses (all members)

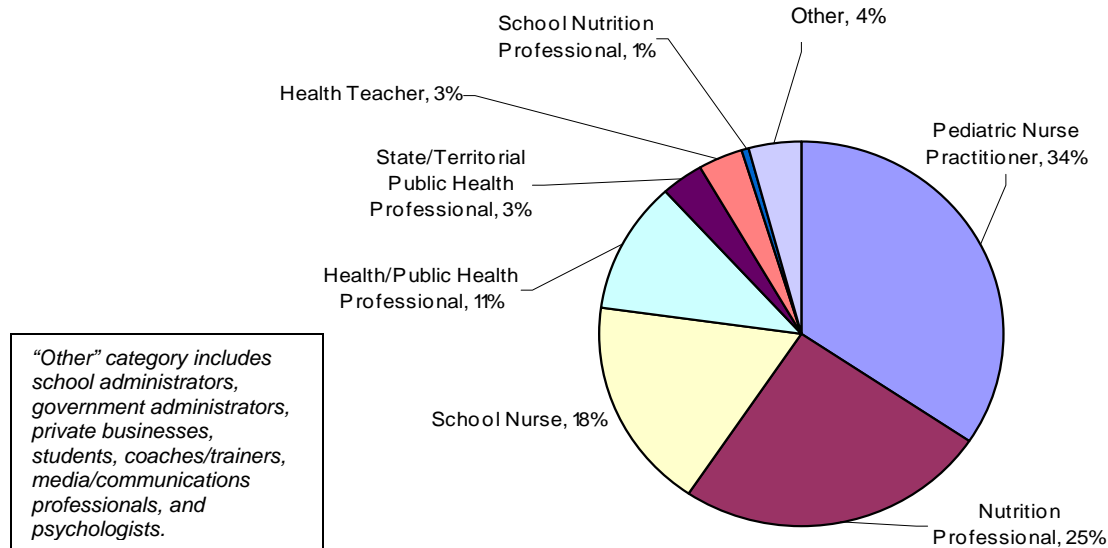
Selected Action for Healthy Kids Team members also were invited to participate in the survey via an e-mail message from the national organization. Team members were targeted for participation based on their job title. Only those members identified as nutrition, health, public health, and school nutrition professionals were solicited. In addition, the reach of the survey was extended by posting an invitation to participate on the listservs of several professional organizations, including the American Dietetic Association's Nutrition Education for the Public Practice Group, the Massachusetts Dietetic Association, the Michigan Dietetic Association, the Nebraska Dietetic Association, and the Society for Nutrition Education.

*NOTE: A single appeal was made to all target audiences, as opposed to a series of e-mails sent to non-respondents. Together, the resulting respondents form a convenience sample, which is a limiting factor in ensuring an accurate representation of a larger group or population.*

## Participant Profile

The survey generated 1,438 responses, with the greatest number of responses coming from pediatric nurse practitioners (34 percent), nutrition professionals (25 percent) and school nurses (18 percent). About 23 percent of all respondents identified themselves as Action for Healthy Kids Team members.

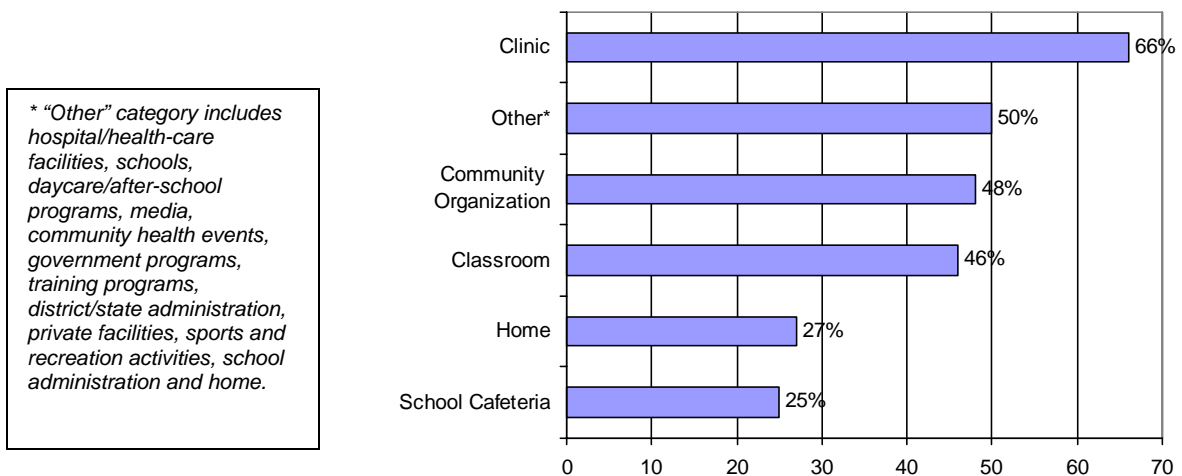
**Survey Respondents by Job Title**



In terms of respondents' specific involvement with youth nutrition education:

- A majority (59 percent) **counsel youth** on nutrition education.
- About a third **develop tools and resources** for youth nutrition education.
- Nearly a quarter **provide training** on youth nutrition education.
- Eighteen percent of respondents checked “Other,” then specified that they are involved in counseling, policy advocacy, teaching, program administration, community outreach, health/nutrition education, food service, school nutrition, medicine/health care, wellness/nutrition, school wellness, parenting, volunteering, youth activity programs, or industry lobbying.
- Thirteen percent are not involved with youth nutrition education in any capacity.

**Frequency with Which Respondents Provide Nutrition Education to Youth in Specific Settings**  
*Total Percentage of Respondents Indicating “Often” or “Sometimes”*



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Nearly half of survey respondents (45 percent) work in an urban setting, while 32 percent work in the suburbs and 23 percent work in rural settings. They work most frequently in clinics, followed by community organizations and classrooms.

Forty-four percent of all survey respondents work with elementary school-aged children (ages 5 to 11). One-fourth work with middle and junior high school students (ages 11 to 15). Eighteen percent work with preschoolers under the age of five, and 13 percent work with high school students (ages 15 to 18).

## Key Findings

Survey respondents overwhelmingly support the recommendations of the 2005 *Dietary Guidelines for Americans*, and more than 85 percent of respondents always or often recommending foods from the Food Groups to Encourage (fruits, vegetables, whole grains and low-fat or fat-free dairy) to the children and youth with whom they work. Nutrition, health and public health professionals are more likely to recommend fruits and vegetables than whole grains and low-fat/fat-free milk and milk products. Three out of four respondents “always” recommend fruits and vegetables while only half of respondents “always” recommend the other two Food Groups to Encourage specified in the *Dietary Guidelines*.

In terms of the barriers *health and nutrition professionals* face in helping youth make better food choices, survey respondents cited parent and caregiver support—or lack thereof—as the biggest impediment. Access to healthy foods, adequate time and resources to counsel youth, and support from school food service and school feeding programs also were commonly named as obstacles. Insufficient training of health and nutrition professionals is not considered to be a major barrier. The food group that presents the greatest challenge across all barriers is whole grains, while dairy is perceived as posing less of a challenge in terms of access, funding and school food service support.

As for the barriers respondents believe *children and youth* face in consuming items from the Food Groups to Encourage, survey respondents most frequently cited youth interest in consuming these foods as most significant, followed by access to the foods, parent and caregiver support, and the school environment. Youth’s knowledge of the importance of these foods is considered to be less of a barrier by most respondents, with the exception of school nurses and health teachers, who consider youth’s knowledge to be a bigger barrier than do other survey respondents. Overall, the intensity of barriers perceived by respondents tends to correlate with the age of the youth they serve—the younger the youth served, the bigger the barriers are deemed to be.

The biggest obstacles preventing children and youth from making better food choices are also the greatest potential levers for positive change, according to survey results. For example, while parents and caregivers and the environment they provide at home were most frequently named by survey respondents as the single biggest obstacle preventing youth from making better food choices, respondents also identify parents as the most important influencer of youth’s decisions regarding the consumption of healthy foods, suggesting that the strongest power for change may rest within this group. Media/advertising represents another major obstacle, which survey respondents also cite as having great potential for positive influence. Other commonly cited obstacles include the high availability of “junk foods” and low availability of healthful foods, youths’ limited exposure to or knowledge of healthy foods, and inadequate nutrition education. Again, there is a correlation between the importance of influencers—which besides parents and media/advertising, includes educators/teachers, federal assistance programs, policy-makers, physicians, nutritionists, nurses, community-based organizations and faith-based organizations—and the age of youth served by survey respondents. The younger the youth served, the more important the influencers are deemed to be.

When asked to share strategies or approaches they have found particularly useful or effective in helping youth make better food choices, survey respondents most often recommended increasing nutrition education. Also important, according to a sizeable portion of survey participants who responded to this question, are limiting youth access to

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unhealthy foods, encouraging parent and caregiver buy-in, instituting special programs, and involving youth in food selection and preparation.

## Overall Research Findings

Note: Detailed findings are available in the Data Summary appendix to this report.

### Views of Nutrition Recommendations in the 2005 *Dietary Guidelines*

Survey respondents first were asked to choose the statement below that best describes their view of the nutrition recommendations provided in the 2005 *Dietary Guidelines for Americans*:

- I support and utilize these recommendations fully.
- I am in general agreement with and utilize these recommendations.
- I have some reservations about these recommendations and generally support them.
- I have a number of reservations about these recommendations.
- I do not support these recommendations.

An overwhelming majority of survey respondents (88 percent) either fully support or generally agree with the nutrition recommendations contained in the 2005 *Dietary Guidelines*. Specific concerns of the 12 percent of respondents who claimed to have either some or a number of reservations about the 2005 *Dietary Guidelines* include:

- Applying the 2005 *Dietary Guidelines* to population subgroups.
- Specific recommendations regarding whole grains and dairy.
- The cost of a diet based on the 2005 *Dietary Guidelines*.
- Guidelines are not user-friendly; they are confusing for average users.
- Lack of information on potentially high levels of calories, sugar, fat and sodium in some foods.
- Insufficient emphasis on physical activity.
- The seasonal availability of some recommended foods.

### Recommending the Food Groups to Encourage

Survey respondents next were asked to rate the extent (always, often, sometimes, rarely, never) to which they make recommendations for youth about each food group cited in the 2005 *Dietary Guidelines* as Food Groups to Encourage—fruits, vegetables, whole grains and low-fat or fat-free dairy. While at least 87 percent of all respondents replied that they always or often recommend each group, vegetables and fruits are “always” recommended at a higher rate than whole grain and dairy foods. Approximately 80 percent of respondents “always” recommend vegetables and fruits compared with only 55 to 57 percent who “always” recommend whole grains and dairy.

Forty-two percent of survey respondents selected vegetables as the primary food group they recommend to youth, followed by low-fat or fat-free dairy (26 percent), fruits (19 percent) and whole grains (13 percent). The pattern of recommending vegetables and low-fat or fat-free dairy to youth remains stable across all age groups counseled by the survey respondents. However, to the youngest (under age 5) and oldest (ages 15-18) youth, respondents are more likely to recommend whole grains than fruits.

Generally speaking, job title and metropolitan status have little effect on the frequency with which survey respondents recommend specific food groups. Pediatric nurse practitioners and health/public health professionals are somewhat more likely to recommend vegetables (in the case of state level public health professionals, this trend may be

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influenced by their funding sources and strategic focus), and nutrition professionals are more likely than others to recommend consumption of low-fat/fat-free dairy. Those who work in urban settings are somewhat less likely to recommend low-fat/fat-free dairy and more likely to recommend fruits than their counterparts in rural and suburban locations.

### Sample comments:

*"I believe the message for all nutrition educators needs to be the same and using the Dietary Guidelines is one way to do this."*

*"The Dietary Guidelines represent an ideal. It is possible to have healthy diets that are not 100 percent in agreement with the Dietary Guidelines."*

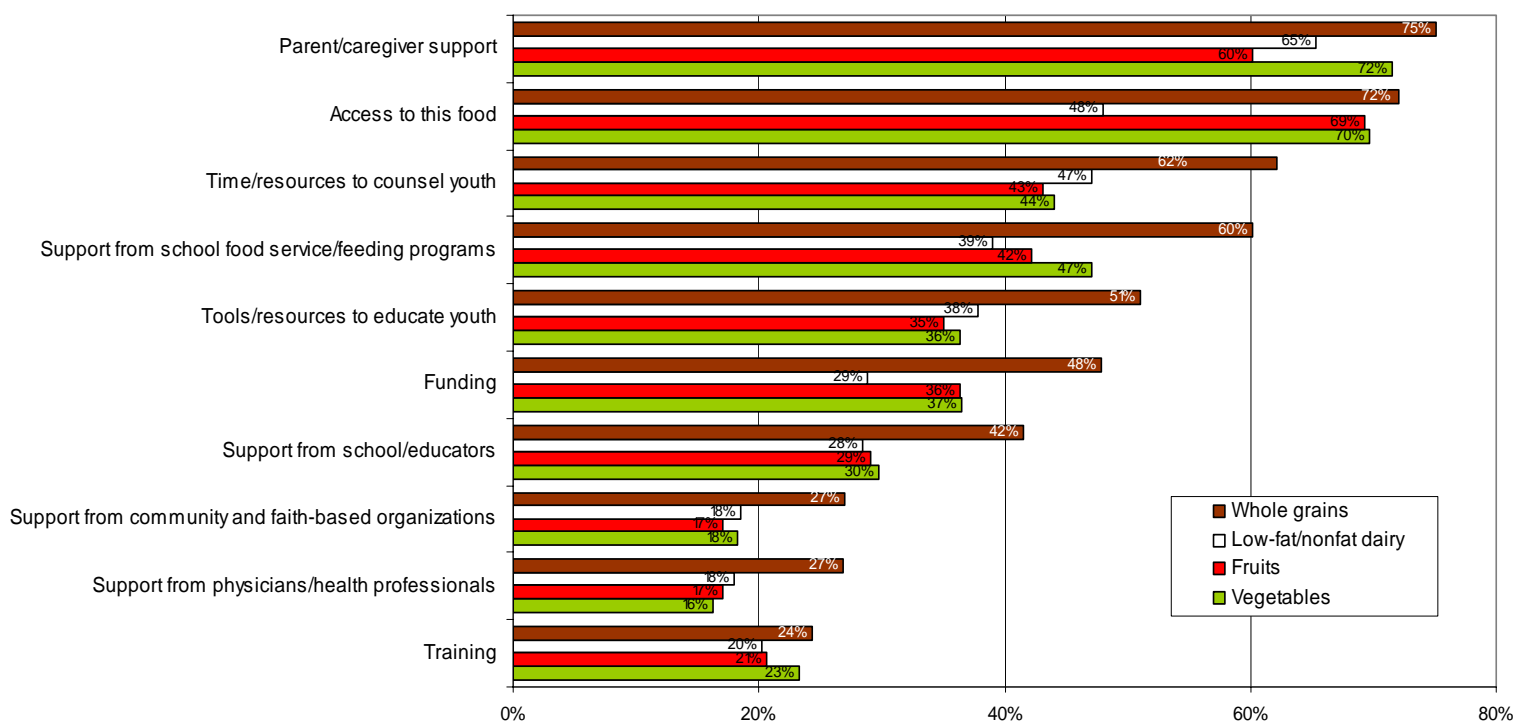
*"These recommendations are extremely difficult for families living in poverty to follow. The cheapest foods are not usually the healthiest, there are few fresh foods available in poorer neighborhoods, and even food stamps run out by the end of the month."*

*"I feel the 2005 Dietary Guidelines for Americans need to be presented in a more user-friendly manner."*

## Barriers to Helping Youth Make Better Food Choices

Survey respondents were asked to rate the extent (major, moderate, occasional, not a barrier) to which various factors represent barriers they face in helping youth consume items from each of the Food Groups to Encourage. These factors included parent/caregiver support, access to this food, time/resources to counsel youth, tools/resources to educate youth, support from physicians/health professionals, support from school/educators, support from school food service/feeding programs, support from community and faith-based organizations, training and funding. Respondents were encouraged to explain their training and funding difficulties in greater depth.

**Degree to Which Various Factors Present a Barrier to Respondents in Helping Youth Consume Items from the Food Groups to Encourage**  
(Total Percentage of Respondents Indicating Factor Is a "Major Barrier" or "Moderate Barrier")



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As the chart on the preceding page shows, survey respondents for the most part were consistent in their ratings of barriers across the four Food Groups to Encourage. Parent/caregiver support ranked as the leading major or moderate barrier for three of the four food groups—whole grains, low-fat/fat-free dairy, and vegetables. Access to this food emerged as the most significant barrier to helping youth consume fruits. Training, support from physicians/health professionals, and support from community and faith-based organizations were *least likely* to present barriers to respondents across food groups. Whole grains emerged as the food group that presents the greatest barriers of all kinds, while dairy is perceived as the food group that presents the fewest barriers in terms of access, funding and support from school food service.

- ***Barriers to Helping Youth Consume Whole Grains***

Three out of four survey respondents cited parent/caregiver support as a major or moderate barrier to helping youth consume whole grains. Nearly the same number (72 percent) listed access to whole grains as a major or moderate barrier. Time/resources to counsel youth (62 percent) was the next most-cited barrier to helping youth consume whole grains, followed by support from school food service/feeding programs (60 percent) and tools/resources to educate youth (51 percent). Major training barriers indicated by respondents include limited nutrition knowledge base, lack of time and funding, and competing commitments and priorities. Funding barriers cited include insufficient funding for nutrition staff and programs, the expense of whole grain foods, and poverty in the surrounding community.

***Sample Comments:***

*“People don't understand how to correctly read food labels to find whole grains.”*

*“Understanding the concept of whole grains is confusing. ‘What is a whole grain?’ There are so many misconceptions out there.”*

*“You must educate the parents, teachers, food service workers and other caregivers, as well as children, to improve consumption.”*

*“Parents need to understand whole grains before youth can consume them. Most parents are not going to purchase whole grains unless they like them and understand all the benefits.”*

- ***Barriers to Helping Youth Consume Low-fat or Fat-free Dairy***

Two-thirds of survey respondents cited parent/caregiver support as a major or moderate barrier to helping youth consume low-fat or nonfat dairy—the only factor to earn a majority in this category. A far smaller percentage (48 percent) listed access to this food as a major or moderate barrier, and still smaller percentages listed support from school food service/feeding programs (39 percent) and time/resources to counsel youth (37 percent) as major or moderate barriers. Training barriers include insufficient funding for nutrition staff and programs, lack of information, and time issues. Inadequate funding is the top funding barrier, followed by the expense of foods from the dairy group.

***Sample Comments:***

*“There are plenty of milk myths out there that prevent or inhibit adequate milk intake.”*

*“Everyone seems to understand the importance of low-fat/fat-free dairy, though I would say there are some mixed messages around lactose intolerance.”*

*“Parents and caregivers must be trained to discern between high-sugar dairy foods (sweetened yogurts, for example) and more healthy choices.”*

*“This is easier to teach than whole grains. It's a simpler concept. However, creamy and whole milk-based foods are part of many cultures and this is difficult to change.”*

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- **Barriers to Helping Youth Consume Fruits**

Seventy percent of survey respondents cited access to this food as a major or moderate barrier to helping youth consume fruits, making this food group the only one whose top barrier is *not* parent/caregiver support. Nonetheless, parent/caregiver support remains a significant barrier, with 60 percent of respondents listing it as a major or moderate barrier. Far smaller numbers of respondents named time/resources to counsel youth (43 percent) and support from school food service/feeding programs (42 percent) as barriers. Insufficient funding for nutrition staff and programs is the most frequently cited training and funding barrier. Other training barriers include lack of time and training, while the expense of fruits is the other primary funding barrier.

**Sample comments:**

*"Access to fruits and vegetables in urban areas is very limited. There are more fast food restaurants per capita in these areas than there are grocery stores."*

*"Everyone seems to know that fruits and vegetables are good for you, but often fruit is not used in a way that makes it an easy, attractive choice."*

*"Schools do not offer attractive or fresh fruits. Parents complain about expense."*

*"2005 Dietary Guidelines specify 13 servings of fruit/veggies a day! Many give up and figure why try."*

- **Barriers to Helping Youth Consume Vegetables**

Once again, parent/caregiver support emerged as the leading major or moderate barrier, cited by 71 percent of survey respondents with regard to helping youth consume vegetables. Access to this food was a close second, with 69 percent of respondents listing it as a major or moderate barrier. Support from school food service/feeding programs (47 percent) and time/resources to counsel youth (44 percent) rounded out the survey respondents' leading barriers to helping youth consume vegetables. Also consistent with other food groups, the top training and funding barrier is insufficient funding for nutrition staff and programs. Time issues and parent/caregiver support are a distant second and third in terms of training, and the expense of vegetables is the second most frequently cited funding barrier.

**Sample comments:**

*"Children need to be exposed to vegetables early on—infancy. There needs to be a major educational effort for anyone involved in nutrition education to teach innovative ways to introduce vegetables and sustain them in the child's diet. Parents also need to understand their part in this as role models for eating vegetables. Recipes and other ways to encourage parents' eating and serving vegetables need to be stressed."*

*"More and more people don't know how to cook veggies! And food service institutions often don't have very tasty options."*

*"The barrier to vegetables is that they need to be PREPARED. Training on vegetables needs hands-on experience and taste testing. Also, adults need to consider WHAT foods and HOW OFTEN they provide foods—and what creative ways they make them available."*

## Barriers Youth Face in Making Better Food Choices

Survey respondents were asked to rate the extent (major, moderate, occasional, not a barrier) to which various factors represent barriers they believe youth themselves face in consuming items from the Food Groups to Encourage. These factors included parent/caregiver support, access to this food, interest/engagement on the part of youth, education/knowledge of this food's importance in a healthy diet, and the school environment. Respondents also were invited to provide a write-in factor if it did not appear on the list provided by the survey.

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Cited by 85 percent of survey respondents, interest/engagement on the part of youth emerged as the leading major or moderate barrier that respondents believe youth face in consuming items from the Food Groups to Encourage. More than three-fourths of respondents also cited access to this food (78 percent) and parent/caregiver support (78 percent) as major or moderate barriers youth face in consuming fruits, vegetables, whole grains and low-fat or nonfat dairy. Rounding out the list are the school environment (72 percent) and education/knowledge of this food's importance in a healthy diet (69 percent).

About 200 respondents wrote in a factor not on the list that they consider a significant barrier. Nearly one-fifth said marketing and packaging pose the biggest barrier, followed by the perceived high cost of healthy foods (17 percent), family influence (13 percent), the pervasiveness of unhealthy foods (10 percent), peer pressure (10 percent), food served at school (8 percent), limited exposure to or knowledge of healthy foods (8 percent), unwillingness to change habits (4 percent), convenience (4 percent), cultural differences (3 percent) and limited support for changing diet (2 percent).

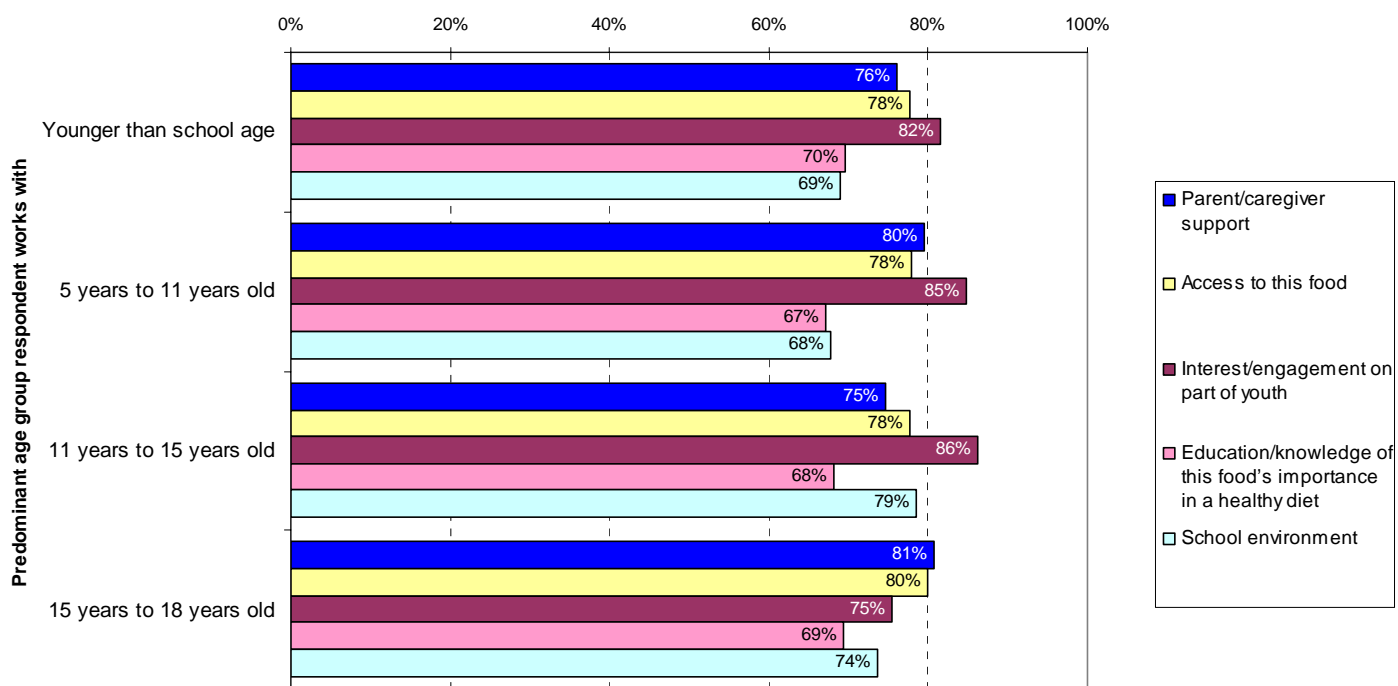
- **Perceived Barriers According to Age of Youth Served**

Breaking out responses by the predominant age of youth served by the survey respondents yields several interesting areas of emphasis. For example, the prevalence of barriers tends to correspond with age—the younger the youth served, the bigger the barriers are deemed to be. This holds true especially for access to this food and education/knowledge of a food's importance in a healthy diet.

The effect of parent/caregiver support as a major or moderate barrier varied to some extent across age groups served by respondents. Although one might expect that parental influence would be strongest with younger children and would wane with respect to teens' eating habits, parent/caregiver support emerged as the leading major or moderate barrier the survey respondents believe youth face in consuming Food Groups to Encourage only for the 15- to 18-year-old age cohort. For respondents who work with other age group cohorts (including preK through age 15), interest/engagement of youth themselves is perceived as the most significant barrier preventing youth from making healthy food choices.

### Degree to Which Various Factors Present a Barrier to Youth in Consuming Items from the Food Groups to Encourage, by Age of Youth Served

*(Total Percentage of Respondents Indicating Factor Is a "Major Barrier" or "Moderate Barrier")*



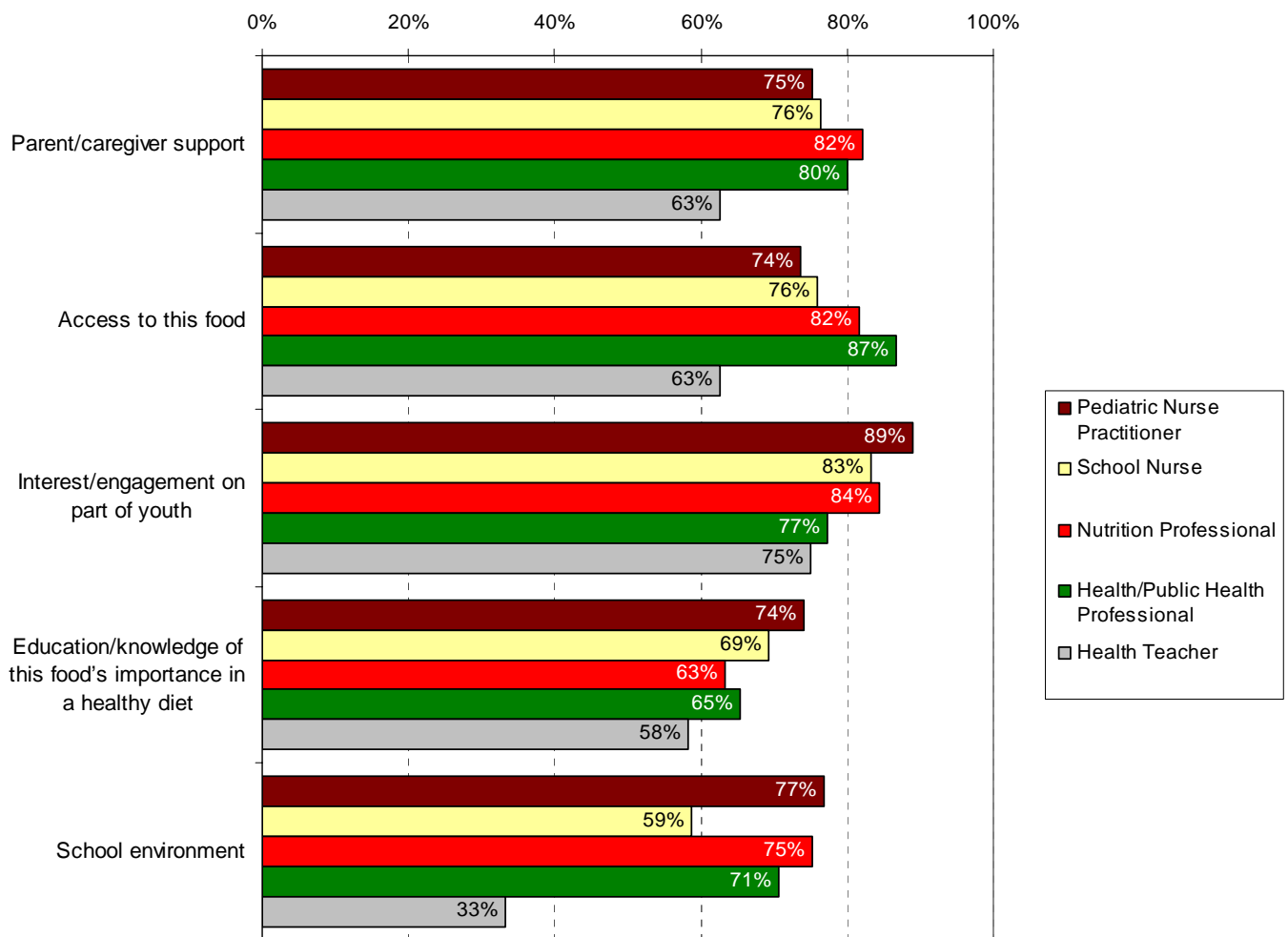
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- **Perceived Barriers According to Job Title**

While interest/engagement on the part of youth was cited most frequently as a major or moderate barrier, health/public health professionals deviated from the rest of the survey respondents in identifying access to these foods and parent/caregiver support as more significant barriers. Pediatric nurse practitioners were most likely to rate all factors as being more significant barriers than other respondents; health teachers were the *least* likely. Health teachers and school nurses cited the school environment as a barrier less frequently than respondents outside the school system did.

**Degree to Which Various Factors Present a Barrier to Youth in Consuming Items from the Food Groups to Encourage, by Job Title**

*(Total Percentage of Respondents Indicating Factor Is a "Major Barrier" or "Moderate Barrier")*



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### *Sample comments:*

*"Why drink water when you can have flavored water? Why drink milk when soda is sold at school? Why eat carrot sticks when your school fund-raising program offers chocolate flavored peanut turtles?"*

*"The food environment is most often not as conducive to healthful eating as it is to eating less-healthful foods that are creatively marketed."*

*"Healthy foods in general are more expensive than unhealthy foods. I serve an economically disadvantaged population who rely on cheap, filling foods for their families."*

*"Our entire culture is geared towards fast, easy, simple and what makes people happy. There is a pressure to give people what they want (our school sells candy to kids as fundraisers because that's what they will buy) rather than offer healthy choices."*

## The Single Biggest Obstacle Youth Face

In an open-ended question, survey respondents were asked to comment on what they believe is the single biggest obstacle preventing youth from making better food choices. Forty-two percent of the 1,062 people who responded to this question suggest that **individual behavior** is the chief difficulty youth face. Home and family habits, instilled primarily by parents and caregivers, were cited most frequently, followed by an unwillingness to change habits and peer pressure.

Nearly a third of respondents to this question consider the **environment** to be the biggest obstacle to healthy eating among youth. Environmental factors include the high availability of foods of low nutritive value, and the limited availability of items from the Food Groups to Encourage. Food industry advertising is also a challenge to youth, as the most highly marketed foods tend to be the least healthy. Foods served on school campuses round out the list of environmental obstacles cited by respondents.

Fifteen percent of respondents suggested that **education** is the problem. According to these respondents, youth have inadequate exposure to and knowledge of healthy foods, and there is a need for improved nutrition education in schools.

In 6 percent of responses, **cultural norms** are identified as the biggest obstacle preventing youth from making better food choices. The "grab-and-go" focus on convenience in American society tends to prevent youth from opting for healthier food choices that require some preparation. Additionally, dishes customarily consumed by some ethnic groups are not necessarily prepared with healthy ingredients.

Finally, another 6 percent of responses cite **money** as the biggest barrier. Respondents remarked that many youth come from households below the poverty line or of a low-income status. Healthy foods are perceived to cost more than cheap foods of low nutritive value.

### *Sample comments:*

*"We need to make sure that youth receive a consistent message with schools taking the lead to model healthy food choices."*

*"[The biggest obstacle is] the availability and appeal of well-marketed, high-fat and high-sugar food and the fact that they don't realize the long-term impact it might have on their health."*

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*“Their parents are not making healthy choices, so they do not make healthy choices. Children will eat most things that are provided if their families are used to eating that way. It has to start at home at a very early age and the entire family has to eat that way. If they grow up eating that way, they don’t know any differently.”*

*“Children are aware that they need to eat fruits and vegetables and drink milk, but they have easy access to soft drinks and food of low nutritional content in large portion sizes. It is not as easy to pick up a fresh fruit or vegetable as a snack. The lack of understanding of proper portion sizes impacts children’s diets significantly.”*

## **The Importance of “Influencers”**

Survey respondents were asked to rate (extremely important, important, moderately important, not important, not sure) the importance of “influencers” on youth’s consumption of fruits, vegetables, whole grains and low-fat/fat-free dairy. Named influencers included nurses, nutritionists, physicians, parents/caregivers, educators/teachers, policy-makers, community-based organizations, faith-based organizations, media/advertising and federal assistance programs. Respondents also could write-in an influencer if it did not appear on the list provided by the survey.

In general, responses to this question reveal the power of individuals, the environment and education to influence youth. By a very narrow margin, survey respondents indicated that parents/caregivers are more influential than media/advertising in helping youth consume foods from the Food Groups to Encourage, with 98 percent and 97 percent of respondents, respectively, rating them as “important” or “extremely important.” Educators and teachers followed with a 90 percent rating.

Federal assistance programs (rated as “important” or extremely important” by 84 percent of respondents) were the next most highly rated influencers of youths’ eating habits, followed by physicians (77 percent), policy-makers (71 percent), nutritionists (69 percent), nurses (64 percent) and community-based organizations (63 percent). Among potential influencers listed in the survey, respondents rated faith-based organizations the lowest (50 percent). Other influencers mentioned by survey respondents in write-in comments include peers, the community, the school cafeteria and food service programs, and the food industry and restaurants. None of these influencers was cited by more than 25 percent of those who provided a write-in response (126 people).

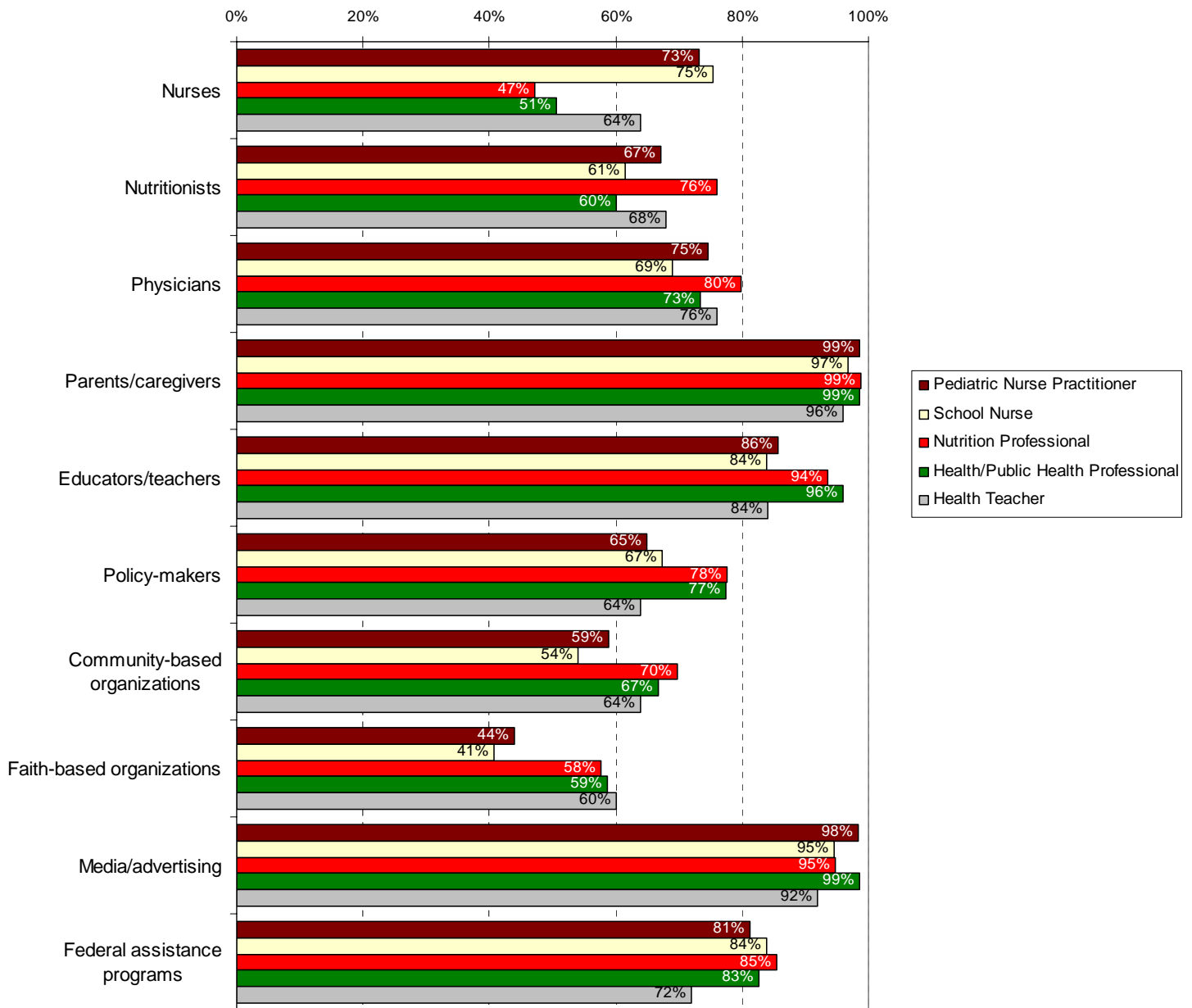
- ***Influences According to Age of Youth Served***

Parents/caregivers emerged as the most often cited extremely important or important influencers of youth across all age cohorts with which survey respondents work, followed closely by media and advertising. As was seen earlier with the prevalence of barriers, influence correlates with the age of youth served: the younger the youth served, the greater the importance of the influencers is deemed to be. Viewed another way, as age of youth increases, the influence of most factors tends to decline. The exception to this trend is the influence of physicians, nutritionists and faith-based organizations, each of which was rated as having slightly more influence by respondents who work primarily with the 15- to 18-year-old cohort than with 11- to 15-year-olds.

- ***Influences According to Job Title***

Nutrition professionals most frequently emphasized the importance of educators/teachers, policy-makers, nutritionists and community-based organizations. Of all respondent groups, health teachers were most likely to cite the importance of faith-based organizations. Some respondent groups judged their own influence, or the influence of those they work closely with, more highly than others did. For example, pediatric nurse practitioners and school nurses rated the importance of nurses higher than other respondents did, while nutrition professionals gave higher grades to nutritionists than did other respondent groups.

**The Importance of Influencers, by Job Title of Respondent**  
*(Total Percentage of Respondents Indicating Influencer Is "Important" or "Extremely Important")*



**Sample comments:**

*"Somehow, 'good-for-you' foods need to be separated from their 'goody-goody' image and become desirable, popular and sexy! The kids who admit to wanting to eat right are perceived as out of the mainstream."*

*"The community as a whole should support making better food choices for our youth."*

*"Parents and caregivers are not good models. Even attempts to provide more healthful food choices in schools are derailed by the home environment."*

## Helping Youth Make Better Food Choices

An Action for Healthy Kids Research Report

*“Parents are children’s example of healthy eating. Parents need to take ownership of their eating habits and learn to eat the correct way so that their children follow them. The problem is many low-income parents work long hours and find very little time to prepare a home-cooked meal. They depend on the sitter to feed their children and most do not know what their kids are eating all day. They also depend on fast food restaurants. Kids pick up on these habits and it becomes a generational cycle.”*

*“Youth look to their peers to see what they are doing—popular students or teen celebrities make a difference.”*

*“If everyone spreads the same message—including the media, parents, policy-makers AND then teachers and other health professionals were given tools/resources to also spread the same message, perhaps we would make a difference.”*

*“It would take a major overhaul of parent education to get parents to stop buying foods that can be prepared out of a box in 15-30 minutes. This would be a huge cultural change in most communities.”*

## Tools and Information to Help Youth Make Better Food Choices

Respondents were asked to rate the extent (all the time, often, sometimes, rarely, never) to which they tap into a variety of sources for tools and information to help youth consume fruits, vegetables, whole grains and low-fat/fat-free dairy. Named sources included:

- Government agencies (i.e., U.S. Department of Agriculture, Centers for Disease Control and Prevention, National Institutes of Health, etc.)
- Professional organizations (i.e., American Academy of Pediatrics, American Dietetic Association, School Nutrition Association, American Public Health Association, etc.)
- Non-profit organizations and foundations (i.e., Action for Healthy Kids, Kellogg Foundation, etc.)
- Food industry companies
- Non-profit commodity organizations (i.e., National Dairy Council, Produce for Better Health Foundation, Wheat Foods Council, etc.)
- My own professional organization
- The organization or department where I work
- Advocacy organizations (i.e., Center for Science in the Public Interest, Friends of School Health, etc.)
- Media organizations (i.e., Discovery Health, Nickelodeon, etc.)

Respondents also could write-in an alternative source not included in this list.

Professional organizations are the favored source of tools and information, according to 92 percent of respondents, who reported that they use this source sometimes, often or all the time to help youth consume foods from the Food Groups to Encourage. Government agencies emerged as the second most frequently used source (84 percent), followed closely by “my own professional organization” (83 percent). Rounding out the list of commonly used sources was the organization or department “where I work” (72 percent), non-profit commodity organizations (72 percent) and non-profit organizations and foundations (71 percent). Fifty-five respondents provided a write-in source. These sources included programs offered by publishers and government agencies, websites, networking and self-developed materials.

Note that response to this question may reflect the fact that the majority of survey respondents are affiliated with a professional organization.

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Media organizations, advocacy organizations and food industry companies were the least likely to earn the confidence of survey respondents—nearly two-thirds rarely or never use information from media organizations, and more than half of all respondents rarely or never use information from advocacy organizations or food industry corporations. Interestingly, although 97 percent of survey respondents previously reported that they view media as an important or extremely important influencer of youth, second only to parents, only 10 percent of them use media organizations often or all of the time to help youth consume fruits, vegetables, whole grains and low-fat/fat-free dairy. This may suggest that increased use of the media (particularly online media) could be an important tool for health and nutrition professionals to leverage in their efforts to help youth make better food choices.

## Promising Strategies and Approaches

Survey respondents were invited to share personal strategies and approaches that they have found to be particularly useful or effective in helping youth make better food choices. They also were asked to identify the target audience for each strategy and approach. While most respondents did not specify an audience, among those who did, the whole family was cited by 34 percent as the target audience, followed by parents/caregivers only (18 percent) and kindergarten to eighth-graders (10 percent).

Twenty-one percent of those respondents who provided strategies and approaches addressed the need to increase nutrition education in order to help youth make better food choices. Limiting access to unhealthy foods and increasing availability of healthy foods was cited by 19 percent of respondents as the next most effective strategy, followed by promoting parent/caregiver buy-in (16 percent) and instituting special programs (10 percent).

Second- and third-tier strategies include involving youth in food selection, preparation and cooking; using taste tests; acting as a role model; emphasizing fruits and vegetables; encouraging youth responsibility for eating habits; addressing media and peer influence (“buzz agents”); increasing physical activity; working with coaches and trainers; encouraging youth to keep a food log; and making policy changes. Following are some specific suggestions from survey respondents regarding the various approaches cited.

## Increase Nutrition Education

Strategies related to nutrition education were the most frequently mentioned by respondents as an approach to help youth make better food choices. Although survey respondents had earlier rated education or knowledge of the importance of Food Groups to Encourage as less important than other barriers youth face in consuming foods from these groups, respondents nevertheless indicated that increasing nutrition education—with a focus on *how* versus simply *why* to make better food choices, and strategies to make nutrition education more relevant and engaging for youth—is vital for all target audiences, including youth, parents and caregivers. Sample comments:

- Focus on the issues that students care about: for boys growth and muscles, for girls body issues.
- Take the onus off the issues of weight and body shape; instead, stress that making better food choices will positively affect all aspects of their lives.
- Turn healthy eating into a science experiment: have students track how they feel for two weeks while eating only healthy foods and avoiding unhealthy foods. How does it affect their weight, mood, etc.?
- Adolescents should keep a diary of foods they eat for one week; sometimes they need to see in black and white that they really are not eating a balanced diet. They need to take responsibility for themselves.
- Teach children about realistic portion sizes. Focus on portions and serving sizes that are age-group appropriate and advise parents and children about calories needed daily and tying that to food choices. The serving/portion size is often the biggest eye opener for parents of younger kids. To discuss portion control, show kids that they always have their fist with them and that their fist is the size of a portion of protein, carbohydrates, fruits,

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vegetables, whole grains, etc. With portion control and increased exercise, any child can get a handle on good nutrition and good health.

- Show children what unhealthy food choices can do to the body and health over a short period of time (visual aids are extremely helpful), and explain the importance of a well-balanced diet.
- Make nutrition education as real as possible. Show how to make healthy snacks, show how much sugar is in foods and drinks by having kids figure it out and then scooping out the amount of sugar. Read and show common food labels from a variety of foods or side-by-side comparisons.
- Encourage kids to make one or two small dietary changes every month. Kids could switch to low-fat dairy, substitute a fruit or vegetable for a junk-food snack, eliminate soda, limit fast food to once a week or drink more water.
- Provide kids with positive, real-life success stories.
- Stress the connection between good nutrition and achievement in other areas, such as academics or sports.
- I go into the classroom with “fat” test tubes that show the amounts of fat in different foods, ranging from a Big Mac to mac 'n cheese to chips to Cheerios to pancakes. It always gets a big reaction from the kids who are grossed out at how much fat is in the foods they eat every day. It is visual, hands-on, they get to move around the classroom looking at displays they touch and they talk to their peers about what they see. I have similar containers of the sugar content of Coke, donuts, various kinds of cereals, candy, Pop Tarts, etc. I show them the calorie content of a breakfast of a donut and a Coke compared to a healthier breakfast.
- Schools need to step up and recognize the correlation of student health and academic achievement. Nutrition education and physical activity get put on the back burner to other academic areas. Parents, especially of low-income children, need education on nutrition for their families.

## **Limit Exposure to Unhealthy Foods and Increase Access to Healthy Foods**

The food environment faced by most kids is challenging. High-calorie, low-nutrient food choices surround them every day, and often those who are most at risk have the least access to healthy options. A recurring theme expressed by many health professionals is that children eat what they know. That is, if kids' only food experiences involve foods of minimal nutritional value, they won't be able to make better food choices. Respondents also indicated that it's easier to encourage healthy foods than it is to convince kids to give up certain “junk foods.” Many cited the need to improve the school food environment by making only healthy foods available on school campuses. Respondents offered a variety of ways to circumvent these problems. Changing the school food environment so that unhealthy options are not available, providing access to healthful choices, starting young and building positive attitudes are the keys to helping youth make better food choices. Among the specific suggestions offered were the following:

- Limit access to calorie-dense, nutrient-deficient foods and provide taste tests of healthy foods.
- It's important to provide youth with a variety of healthy options; don't force them to eat foods they don't like.
- It's easier to encourage healthy foods than it is to convince kids to give up junk foods. Try to target young children and make healthy food fun and easy.
- Allowing only reduced fat milk for children over 2 years of age on WIC checks is sometimes unpopular but has been a successful approach for forcing change in many families.
- Instruct parents and kids to look for “bad” ingredients, such as high fructose corn syrup (HFCS), artificial sweeteners, food coloring and other artificial ingredients, on food labels. If the ingredients on a food label sound like a chemistry textbook, avoid that food.
- Expose kids to as much variety of raw, fresh fruits, vegetables and whole grains as possible; let these foods become any portion of a meal (entree, fruit, veggie, side, etc.).

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- It is our job as health care professionals to introduce new foods to youth and their caretakers. We must be able to show them a practical way of introducing new and healthier foods.
- Encourage the school food service to provide healthy choices, move the high-fat foods to an area that is less convenient and eliminate all soda and high-sugar drinks. Encourage the school counsel to work with the food service company to implement healthy alternatives.
- Offer opportunities to taste healthy foods before making those items regular offerings in the school cafeteria. Kids might not risk paying for a meal or snack they are not familiar with and the healthy changes may not be successful. Kids eat what they know, so make sure they know about healthier food options.
- Print the school meal menu for the week and go through “best choices” in advance to help students make healthier selections for their meals at school.
- Get children involved in the food chain. Teach them where their food comes from—hands-on instruction works best to engage them with their food. Explain to them that food should nourish the body. Children need to know that a plant in the ground or a tree or a cow is a direct source of nourishment. Our children are totally disconnected and therefore wind up with very little respect for our food sources and their bodies.
- Children will eat good food if given the opportunity to have a variety of choices and if they do not have to choose between nutritionally limited snacks and so-called good food. We need to reinforce (market) the idea that healthy food is good food.

## **Achieve Parent/Caregiver Buy-in**

While more than three-fourths of all survey respondents previously cited parent/caregiver support as a major barrier they face in helping kids make better food choices, only 16 percent of respondents who shared strategies to help youth make better food choices offered ideas for tackling this difficult challenge. Respondents tend to believe that no amount of work on the part of schools can succeed if parents aren't part of the solution—it has to be a total team effort. Kids can't make better food choices by themselves. Parents are the gatekeepers and must lead by example to instill the habits they hope their children will adopt. When parents and caregivers set a good example and provide healthy food options, kids learn to make better food choices. Sample suggestions included:

- Make sure the parents know that they are responsible for the food that is brought into their home. Remind parents that kids can't eat what parents don't buy.
- Provide parents with lists of foods to try. Suggest Internet sites with nutritional information. Help them make better choices if they do go to a fast-food restaurant. Engage the whole family in better eating habits.
- Set short-term, attainable goals so that the entire family can make needed changes.
- Get the whole family committed to making healthy changes in a positive way without making it “dieting” and “exercise.”
- Educate the parents in their primary language and have weekly or monthly support sessions to guide them. Friends are also a huge influence, so changes in the school community are effective.
- Develop a friendly relationship with the parents. During the initial visit, provide them with a complete nutrition assessment and establish a self-management goal on one habit to change. It could be helping their child drink less juice. Follow up within a week to discuss the progress toward that goal—many parents want this type of support and accountability.
- Parents and caregivers must follow the same guidelines if they are going to effectively teach children proper diet. Too often an overweight teacher/nurse/doctor tries to educate the youth. Adults should act as role models for young people.

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- Start young. Stress to parents that offering healthy foods to a child as a toddler will help that child grow accustomed to healthy eating. Avoiding bad habits at a young age means never having to break those habits later.
- The most effective strategies I have seen are those that involve educating the whole family about the importance of healthy eating, and teaching practical ways to improve eating habits through setting realistic goals.

## **Implement Special Programs**

Ten percent of the survey respondents who suggested strategies or approaches for helping youth make better food choices believe that instituting curricular or extracurricular programs related to nutrition and physical activity is most effective for encouraging the consumption of Food Groups to Encourage among youth. Specific programs cited by these respondents were:

- The Power of Prevention (American Association of Endocrinologists) [www.powerofprevention.com/e\\_health.php](http://www.powerofprevention.com/e_health.php)
- Jump Rope for Heart (American Heart Association)
- Harvest of the Month (Network for a Healthy California)
- OrganWise Guys (private company)
- Teen Cuisine (Pinellas County Schools, Florida)
- Community activity nights
- Farmers' markets

## **Other Ideas**

### **Involve kids in food selection and preparation.**

- When kids are active participants they learn better. Involving kids in food selection and letting them help in the kitchen teaches them that making better food choices can be fun and have positive benefits on their health.
- Teach children how to cook and help them understand the ingredients, what is good to use. Teach school-age children how to read food labels as part of reading.
- Involve kids in food planning, selection, preparation and cooking. If children can become more involved in the preparation of food, they will try more foods and decide what they like for themselves.

### **Use taste tests.**

- A great way to introduce kids to a new food is through a taste test in the school. Make sure that fruits and vegetables are fresh and keep portions small.
- Hold taste-test parties so that parents can sample new healthy foods.

### **Be a role model.**

- When kids see adults practicing what they preach, the kids are much more likely to take those lessons to heart.
- Modeling is a very powerful teacher. If parents and role models are willing to model healthy behaviors and schools, the media, physicians, etc. can reinforce these healthy behaviors, then I believe children can improve what and how they eat and move.

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### **Encourage kids to be responsible for their own food choices.**

- Empowering kids and providing options are two great ways to help them make better food choices. Learning the benefits of making better food choices early helps to instill lifelong healthy habits.
- Treat them all as adults and tell them all the facts about junk food and what it does to their bodies. Talk about trans fat, cancer, etc. Don't hold back. That's what works!
- When they record what they eat, kids gain an appreciation of the amount of junk food they consume. A food journal helps to make kids accountable for their food choices.
- Put the responsibility on the child. Have them read food labels and food pyramid charts so they understand what they are putting into their bodies. Teach them early so that they develop life-long good eating habits.

### **Pay attention to media and peer influence, as well as “buzz agents.”**

- You can't shield kids from the media, but you can make sure that the school environment is free of ads and product placements for non-nutritious foods.
- Use the same tactics as the food industry: use a variety of approaches so that you reach all kids. For example, use rap, country and pop music; surfer, skater and metal models, etc.
- Do whatever it takes to make healthy eating appear cool.
- We should market nutrition to youth in the same manner as fast foods and snacks. Industry spends more than \$10 billion each year on creating a “nag factor” for junk foods so that parents purchase these foods for their children. In contrast, only several million is spent marketing nutrition.
- Work on kids' media-literacy skills—it's the best way to counter the effects of food marketers.
- Encourage kids to be responsible for their own food choices. Challenge them to fight against the hegemony of mass-marketed high-calorie and nutrient-deficient foods.
- Present any suggestions to stop eating junk food as a change in habits, not as a diet.
- The concept of “buzz agents” is very attractive. This approach trains a group of teens in a particular school to promote physical activity and healthy eating and market this to their fellow students/peers.

### **Increase physical activity and engage coaches/PE teachers/teams.**

- Emphasizing fitness and wellness shifts the focus away from weight and body image. It's easy to start slowly and gradually build up the intensity and duration of physical activity.
- Help young athletes understand the connection between proper nutrition and improved performance. Coaches can have a huge influence on young athletes.

Throughout the survey, many respondents acknowledged the importance of **perseverance** as a key strategy to help youth make better food choices. As one respondent put it, “The best strategy for me is not giving up. Continue to have a presence in the schools, the community and most importantly with the children and their families, to support them in making the right choices for a healthier lifestyle.”

A selection of promising strategies and approaches recommended by nutrition, health and public health professionals who participated in this survey has been compiled in the forthcoming Action for Healthy Kids guide “Tips for Helping Youth Make Better Food Choices,” which will be available in fall 2008 at [www.ActionForHealthyKids.org](http://www.ActionForHealthyKids.org).