

Message Development and Testing

The audience-focused approach used in the development of the core messages included input from program stakeholders and the target audiences via focus group testing. This process helped create core nutrition messages that are:

- **Accurate.** All messages and supporting content are accurate and consistent with the *2005 Dietary Guidelines for Americans* and *MyPyramid*.
- **Easy-to-read.** Messages and supporting content are written at a 4th-5th grade reading level as determined by SMOG and Fry readability formulas. Focus group testing also explored whether participants understood messages and content.
- **Emotionally based.** Focus group testing explored participants' feelings about being mothers, feeding their children, and the emotionally based rewards of making changes in how and what they feed their children. This information was used in the early development of the messages to create an emotional pull that helps compel moms to take action. Later focus group testing assessed whether these messages resonated with the target audiences.

"I see my daughter peeping around the corner seeing what [I'm] eating and running in and saying, 'I want some, I want some.'"

-Mother of preschooler, Birmingham, AL

Core Messages Workgroup

A Core Nutrition Messages Workgroup consisting of experts in nutrition education, communications, and FNS programs deliberated and made recommendations regarding the behavioral focus, target audience, concepts, and scope of the core messages and supporting content. Members included representatives from:

- Food Stamp, WIC, Food Distribution, and Child Nutrition programs
- U.S. Centers for Disease Control and Prevention
- National WIC Association
- School Nutrition Association
- Food Stamp Nutrition Education implementing agencies
- Association of State & Territorial Public Health Nutrition Directors
- National Institutes of Health
- USDA Agricultural Research Service, Children's Nutrition Research Center.

Messages That Matter: What Moms and Kids Told Us in Focus Group Testing

Thirty focus groups were held in eight States between December 2007 and July 2008 to guide the development of messages and supporting content and to test final products (see Table 1 for a list of States where focus groups were held).

Table 1: Locations of Focus Groups

Phase One	Phase Two	Phase Three*
Rochester, NY	Los Angeles, CA	Raleigh, NC
Baltimore, MD	Chicago, IL	Tampa, FL
Dallas, TX	Birmingham, AL	San Antonio, TX

* Phase 3 included the testing of division of feeding responsibility messages with mothers of preschool-age children only.

In total, 140 mothers and 73 children participated in the groups. All participants had household incomes at or below 185 percent of the Federal poverty line; over half of the households were participating or had children participating in the FSP, NSLP, and/or WIC. Refer to Table 2 for additional information about focus group participants. We learned a lot from the focus group testing—what worked and what didn't work. The findings provided in the following paragraphs explain why the core messages are worded a particular way. These insights can help you reflect the tone and spirit of the messages in other materials you may develop. Because this research was conducted among small samples of our target audiences, the findings should be viewed as instructive but not definitive.

Table 2: Demographic Information of Focus Group Participants

Moms (140 participants):	Total	Kids (73 participants):	Total
Race/Ethnicity		Race/Ethnicity	
Black or African American	61	Black or African American	34
White or Caucasian	44	White or Caucasian	22
Hispanic or Latina	33	Hispanic or Latino	16
Other	2	Other	1
Age		Gender	
18-34	83	Boys	35
35-50	57	Girls	38
Marital Status		Age	
Single	57	8-year-olds	18
Married	54	9-year-olds	30
Separated or divorced	29	10-year-olds	25
Level of Formal Education		Grade in School	
High school or less	50	First grade	1
Some college	75	Second grade	4
College graduate	15	Third grade	29
Employment		Fourth grade	
Not employed	57	23	
Employed part time	31	Fifth grade	
Employed full time	52	16	
Participate in WIC, Free/Reduced Lunch, or FSP*		Children's moms report that families participate in WIC, Free/Reduced Lunch, or FSP*	
Yes	90	Yes	50
No	50	No	23

* On October 1, 2008, the Food Stamp Program changed its name to the Supplemental Nutrition Assistance Program.

General Findings

In our focus groups, mothers consistently described their lives as busy and hectic. This influenced their preference for messages and the likelihood that they would attempt the suggested behavior. Generally, moms preferred messages and supporting content that were practical and would fit into their busy schedules. For instance, moms found messages that encouraged them to offer fruits and vegetables at every meal to be unrealistic since their children were not with them at every meal. Moms were also less receptive to tips and activities that they felt would be too time-consuming or require a lot of cleanup. For example, moms disliked a tip on how to make “frozen banana pops” for this reason. Draft messages that had game-like associations (e.g., “follow the leader” or “make grocery shopping a fun adventure”) received mixed responses from moms. For some mothers, these messages implied that kids would be running all over the store or “playing around” at mealtime.

Messages that appealed to moms tapped into their desires to teach their children new skills and to help their children have a better future. Moms also preferred tips that suggested an activity would help their children learn, have greater self-esteem, or simply make them happy.

Our research also showed that many moms of both preschool- and elementary school-age children considered canned and frozen fruits and vegetables to be less healthful (e.g., canned vegetables were too high in sodium, canned fruit had too much sugar) than fresh, and reported not purchasing them for this reason. This influenced moms’ receptiveness to tips and messages, with moms disliking any tips that referenced using canned or frozen

fruits and veggies for meals or snacks. Many moms reported running out of fresh fruits and vegetables between shopping trips. Based on these findings, additional information on the benefits of frozen and canned fruits and vegetables, particularly when fresh is not available, was added to the supporting content.

Discussions With Mothers of Preschool-Age Children

Role Modeling

1: They learn from watching you. Eat fruits and veggies and your kids will too.

2: They take their lead from you. Eat fruits and veggies and your kids will too.

Focus group findings indicate that mothers consider themselves to be role models for their 2- to 5-year-olds and have observed their children copying or mimicking their behavior in the past. Participants connected strongly with the “learn by watching you” and “take their lead from you” aspects of the role modeling messages, noting that they were believable and conjured up strong mother/child images.

“...I think of things my parents used to do and I think those are things I should try to do—they [kids] take their lead from you. They’re very impressionable. Whatever you do, they do, too.”

-Mother of preschooler, Chicago, IL

Supporting content accompanying these messages includes a brief narrative by “a mom” (see Figure D), as well as bulleted tips. Mothers connected with several phrases in the narrative and bulleted tips, particularly those that expressed moms’ desires to teach their kids and help them have a healthy future.

Overall, our findings indicate that these messages and the supporting content work because they help motivate moms to be good role models in a practical way that doesn’t make moms feel guilty.

Cooking and Eating Together

1: Cook together. Eat together. Talk together. Make mealtime a family time.

2: Make meals and memories together. It’s a lesson they’ll use for life.

Less than half of mothers of preschoolers in our focus groups reported eating together with their family on a regular basis. While some mothers ate breakfast or lunch with their children, dinner was the meal most frequently eaten together. On an emotional level, moms in our focus groups were engaged by the idea of mealtimes being an opportunity to create positive memories for their families and as a time for teaching their children healthy habits. Moms found the repetition of the word “together” and the use of “family time” in these messages compelling because they emphasized the shared aspects of mealtime.

“That’s how we grew up...sitting at the table, but now it’s different.”

-Mother of preschooler, Birmingham, AL

For some mothers, these messages reminded them of their own experiences of sharing family meals and learning healthy habits from their mothers and/or grandmothers.

Supporting content related to eating together (see Appendix B, page 29) addresses issues, barriers, and motivators that emerged during early focus group testing. Moms who did not eat dinner with their children mentioned scheduling conflicts, differences in preferred eating times and locations (e.g., family members wanting to eat later or in the living room), and challenges associated with feeding their preschoolers while trying to eat their own meals. While mothers emphasized the importance of eating together as a family to talk and connect with each other, many reported watching television while eating together during mealtimes. Focus group testing of the supporting content indicated that moms particularly liked tips about focusing on each other at mealtimes and making meals a stress-free time. Moms also liked interwoven role modeling tips in this content, specifically the “eat fruits and veggies and your kids will too.”

Our focus groups revealed that many moms did not currently involve their children in even the simplest food preparation activities, such as washing produce or adding ingredients. The core messages and supporting content appealed to moms because they emphasize the “teaching” and “learning” aspects of preparing foods together and the emotional benefits of such activities (see Figure E). Initially, many moms had difficulty envisioning

Figure D: Sample Narrative-Style Supporting Content on Role Modeling*

“My 3-year-old picks up on so much. She loves to copy what I do. Sometimes she will ask for a food she saw me eat. And I didn’t even know she was watching me! So, I try to eat fruits and vegetables. That way she’ll want them too. My doctor told me that kids learn eating habits when they are young. I want my child to learn to eat fruits and vegetables so she’ll be healthy. It makes me feel good that I’m teaching her something she’ll use for life.”

* See Appendix A for full supporting content related to role modeling.

Figure E: Sample Bullet-Tip Style Supporting Content on Cooking Together*

Teach your kids to create healthy meals. It's a lesson they'll use for life.

- Kids like to try foods they help make. It's a great way to encourage your child to eat fruits and vegetables.
- Kids feel good about doing something "grown-up." Give them small jobs to do. Praise their efforts. Their smiles will light up your kitchen.
- Kids love helping in the kitchen. Parents love knowing that their child is also learning skills they'll use for life. Help teach them to follow instructions, count, and more!

* See Appendix B for full supporting content related to cooking and eating together.

"cooking" activities that 2- to 5-year-olds could do safely. The supporting content provides moms with cooking activities that are appropriate for 2- to 5-year-olds. Moms felt that these activities were not too time-consuming or too messy. Our findings indicate that moms are most skeptical about involving 2- to 3-year-olds in cooking activities. Additional hands-on activities during nutrition education classes may further help overcome this barrier.

Messages on the Division of Feeding Responsibility

Many nutrition education materials that address the division of feeding responsibility use language stating that parents and caregivers are responsible for what, when, and where a child eats and children are responsible for how much and whether they eat.¹⁷ In our first round of focus group testing, we tested several variations of this idea, including: *"How much your child eats may not look like enough, but it probably is. Offer a variety of healthy food choices and let your child decide how much to eat. They'll eat what they need throughout the week."* The reaction from moms to these messages was strongly and consistently

negative. Moms did not find these statements to be true, believable, or motivating.

"I can't trust her when she says, 'I'm all done,' because it means... 'I wanna go play.'"

-Mother of preschooler, Raleigh, NC

Based on these findings, we conducted additional focus group testing on this topic to better understand mothers' thoughts, feelings, and practices regarding various tenets of the division of feeding responsibility. These focus groups revealed that low-income mothers did not believe that their children would or could make responsible choices on their own about what to eat and how much to eat. Moms felt that their children would say "I'm full" or "all done" to try to leave the table to avoid eating foods they do not like or to play, watch television, or do something they would rather be doing other than eating.

"Even though it's a tiny little bit, well, you have to force them to eat. So if I just let them decide how much they're going to eat, they won't eat. But they're going to be hiding behind me eating something else that they can find on their own."

-Mother of preschooler, Dallas, TX

Interestingly, many moms felt that kids should not be made to "clean their plate," yet moms openly stated that they would engage in a number of child feeding practices to get their children to eat "enough." As such, messages related to not making kids eat everything on their plate may miss the mark because moms report not engaging in this particular behavior. However, they do use pressure and coercion to get their children to eat what they feel is "enough."

The “moms provide, kids decide” concept was a very new and abstract idea for most mothers. The core messages on this topic help introduce this concept in specific ways and in areas where moms are more open to change. Specifically, the messages are designed to motivate moms to let children decide how much to eat when introducing new foods and by allowing children to serve themselves. For these messages, we found that a short “hook” followed by three to four sentences of supporting text worked better than the brief messages used for the other concepts.

Letting Children Serve Themselves

Let them learn by serving themselves. Let your kids serve themselves at dinner. Teach them to take small amounts at first. Tell them they can get more if they're still hungry.

During our focus groups, few mothers allowed their preschool-age children to serve themselves. Most mothers prepared their children's plates in the kitchen and then put them on the table, serving their children portions based upon what their kids typically eat. When presented alone as part of supporting content, moms reacted negatively to the idea of letting kids serve themselves, saying that it would be too messy, unsafe (i.e., hot foods), or that their kids just weren't capable of doing so.

However, when the message was presented in the context of allowing kids to “learn by serving themselves,” we saw a dramatic transformation. Moms started talking excitedly about how they would try this at home, and they saw this as a way to help their children advance developmentally.

“One of the things that I've taken out of [this discussion] is teaching my son how to serve himself so that he can learn good portion sizes and learn to become more independent. He likes to do things on his own now, and serving himself would be another milestone in growing up.”

-Mother of preschooler, Tampa, FL

The words “teach” and “learn” were key motivators in this message, with moms responding well to the idea of guiding their children toward independence. Moms liked the phrase “Tell them they can get more if they're still hungry” because it made them part of the process and emphasized one of their favorite roles—teacher. Also, the ideas of practice and taking small amounts limit the chance for mess and wasted food.



Moms also were especially responsive to a portion of another draft message, and we suggest that you consider using it in supporting content: “Even your 3- to 5- year-old child can practice by serving from small bowls that you hold for them.” For some mothers, this statement alleviated their concerns about children serving from a hot stove and provided a concrete and practical way that children could serve themselves.

Trying New Foods

Sometimes new foods take time. Kids don’t always take to new foods right away. Offer new fruits and veggies many times. Give them a taste at first and be patient with them.

Patience works better than pressure. Offer your children new foods. Then, let them choose how much to eat. Kids are more likely to enjoy a food when eating it is their own choice. It also helps them learn to be independent.

In our early focus group testing mothers responded negatively to messages that implied that it could take up to 11 tries before a child likes a new food. Some moms thought this many repetitions suggested forcing a food on a child, while others suggested that the result was not worth the trouble. Instead of offering the same food to their children 11 times just to get them to eat it, they reasoned that there are other healthful options they can get their children to eat with less effort.

Moms were more open to messages that encouraged them to give their children many opportunities to have small tastes. The core nutrition message, “Sometimes new foods take time,” worked because it reflected reality. Moms agreed that it takes patience and persistence to get a child to eat a new food. Statements like this one confirmed they were doing the right thing and encouraged them to keep trying.

Moms also reacted positively to a part of another draft message we tested: “When they develop a taste for many types of foods, it’s easier to plan family meals.” We suggest that you consider making this part of your supporting content.

The “Patience works better than pressure” message worked because it helped mothers feel like they are part of the learning process, even if it is something the children need to learn on their own.

Discussions With Mothers of Elementary School-Age Children

Making Fruits and Vegetables Available and Accessible in the Home

1: Want your kids to reach for a healthy snack? Make sure fruits and veggies are in reach.

2: When they come home hungry, have fruits and veggies ready to eat.

In our focus group testing, moms agreed that kids are more likely to eat foods that are visible and easy to reach. They particularly identified with the idea that kids are hungry when they get home from school and look for a snack. Moms liked that these messages reminded them of how to help their kids choose fruits and vegetables over other less healthy options. Supporting content includes a short narrative paragraph describing a mom’s experience in trying to get her child to eat fruits and vegetables, bulleted tips, and recipes (Appendix C, page 31).

“When I get something that’s eye level or in reach, he will pick that because he’s very independent. He likes to do it himself. If it’s right in front of him, that’s what he’s going to choose.”

-Mother of elementary school-age child, Los Angeles, CA

Moms related to the idea that kids enjoy dipping vegetables and fruits into things such as fat-free ranch dressing. Many particularly liked (and thought their children would enjoy) the idea of giving yogurt dips fun names like “Swamp Slime” for lime yogurt and “Pink Princess Dip” for strawberry yogurt (Figure F).

Some mothers were apprehensive about whether their children would like dips made with yogurt or sour cream, even though most moms were enthusiastic about using low-fat ranch dressing as a dip. Likewise, some moms didn’t know if their kids would like dips made with curry powder or avocado. Taste testing activities would help moms and children try out “new” recipes and increase the likelihood that they would prepare them at home.

We removed some recipes/tips from the supporting content because moms felt they would be too time-consuming, require too much cleanup, or would not be appealing to their children. These included making yogurt parfaits (e.g., layering cereal and yogurt), frozen banana pops, and frozen grapes. Moms may be more receptive to these recipes if they prepare and taste them in a class activity.

Message on Involving Kids in Shopping for Fruits and Vegetables

Let your kids be “produce pickers.” Help them pick fruits and veggies at the store.

The “produce picker” message engaged moms because they have seen the truth of the statement from their own experiences. For instance, one mom said, “If you let a kid pick something out, he’ll eat it.” Some respondents also pointed toward the emotional rewards “produce picking” gives their children, such as building their self-esteem.

“Let them do something big,” said one respondent. “They feel important, and they feel like they’re doing something good for me and for themselves.”

-Mother of elementary school-age child, Birmingham, AL

Some moms felt that it would be harder to engage their children in helping to pick out canned and frozen fruits and vegetables at the store because kids cannot touch and smell them. Creative ways to engage kids in selecting frozen and canned fruits and vegetables may be useful as an educational activity.

Figure F: Sample Supporting Content on Availability/Accessibility

Dip-a-licious!

Fruit Wands with Pink Princess Dip or “Swamp Slime”

- Put pieces of fruit on a toothpick, skewer, or straw.
- Cover with plastic wrap and store in the refrigerator until snack time.
- Serve with low-fat strawberry (Princess Dip), or lime yogurt (Swamp Slime) for dipping.

Happy Snack Packs

- Fill small containers or snack bags with cut-up veggies.
- Add a small container of fat-free ranch dressing for dipping.
- Decorate the outside of the bags with stickers.
- Store in the refrigerator on a shelf where they are easy for your child to see.

“Oh, that produce pickers...with them helping to pick the vegetables that they may want to eat. That might be helpful to me, instrumental with me getting him to eat more of them, if he’s able to pick them out himself. I’m thinking I’m going to try anything to get him to eat more vegetables now.”

-Mother of elementary school-age child, Chicago, IL

Message on Providing Low-Fat or Fat-Free Milk at Meals

1: They’re still growing. Help your kids grow strong. Serve fat-free or low-fat milk at meals.

Our focus groups with moms and kids both indicated that few children consume milk at dinner. At home, milk was typically only offered at breakfast on cereal or, at times, with cookies as a snack. Many mothers felt that milk was no longer a priority now that their children were older. They noted that their children preferred other beverages or could get the calcium they need through cheese or other foods.

“Now they’re older, they have choices, and they do other things to get their calcium. My kids are big cheese and yogurt eaters. So if they’re not drinking the milk, I don’t really care...[because] they’ll get it at school, ‘cause that’s all they have. But, other than that, they eat other choices.”

-Mother of elementary school-age child, Chicago, IL

In the core message about milk, moms readily connected with the phrase “they’re still growing,” which is designed to reinforce the idea that milk continues to be important in children’s diets as they grow. Moms found the message call to “help your kids grow strong” to be motivating, with some reflecting on how milk was valued when they were growing up.

“That’s what I was raised on. Milk helps you grow strong.”

-Mother of elementary school-age child, Birmingham, AL

Responses from moms indicate that supporting content needs to convey that fat-free and low-fat milk have the “same nutrition with less fat” than whole milk. Some mothers were unclear about the nutritional differences between the types of milk available. Findings also indicate that taste tests involving fat-free, low-fat, reduced-fat, and whole milk may be needed to bolster messages encouraging mothers to serve fat-free or low-fat milk. Finally, some mothers were not receptive to messages encouraging milk for the entire family at meals since they do not like/consume milk themselves. Additional messaging research in this area is needed.



Discussions With 8- to 10-Year-Old Children

Food Preferences, Beliefs, and Asking Behaviors

- Eat smart to play hard. Drink milk at meals.
- Eat smart to play hard. Eat fruits and veggies at meals and snacks.
- Fuel up with milk at meals. And soar through your day like a rocket ship.
- Fuel up with fruits and veggies. And soar through your day like a rocket ship.
- Snack like a super hero. Power up with fruit and yogurt.

In our focus groups with 8- to 10-year-old children, kids preferred messages that melded fantasy/aspiration with the reality of being the “best you can be.” These results echo findings from other researchers, indicating that this age group is motivated by the ideas of having more energy, being strong or fast, and maximizing their physical performance at play or sports.⁴⁹

The five core nutrition messages for children utilize a rocket ship, super hero, and an “Eat smart to play hard” theme:

- The “Eat smart to play hard” messages were the most popular messages tested. Kids understood the “Eat smart to play hard” messages to mean that consuming fruits and vegetables or milk would give them strength and energy for sports and play.
- The rocket ship messages also appealed to kids. Most understood these messages to mean that fruits and vegetables or milk would help them be faster or have more energy.
- Similarly, many liked the super hero-themed message, which conjured up ideas of being big and strong.

“If you eat smart...then you can play harder and be more active, and you can do more things because you have more energy.”

—Elementary school-age child, Chicago, IL

These fun themes can help you stimulate children’s curiosity in related educational games, challenges, and other activities designed to motivate kids to consume more fruits and vegetables and low-fat/fat-free milk or milk products.

“I like it ‘cause I actually want to soar, and I actually want to go to the moon and stuff, like an astronaut.”

—Elementary school-age child, Los Angeles, CA

Messages in which milk or fruits and vegetables were the reward for performing a requested behavior were not motivating to kids. For example, the message “Remind mom which veggies are your faves, then she will know to offer them at dinner” did not test well in our groups. Kids understood the benefit of “being healthy,” but it was not particularly motivating to them when presented as the only benefit.

To be consistent with the *Dietary Guidelines for Americans*, the core nutrition messages for 8- to 10-year-olds need to be paired with images depicting fat-free or low-fat milk or yogurt, when milk or yogurt appears in the text of the message. In our focus groups, kids did not understand the terms “low-fat,” “fat-free,” “1%,” etc. Many could not identify milk products as categorized in MyPyramid. Educational activities addressing these issues would be beneficial.