

IV. 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 2010 *Dietary Guidelines for Americans* and *MyPlate*.
- **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

FNS collaborated with partners in developing the initial and subsequent messages and related material. The Core Nutrition Messages Workgroups deliberated and made recommendations regarding the behavioral focus, target audience, concepts, and scope of the core messages and supporting content. Workgroup members for both Phase 1 and Phase 2 included representatives from FNS Programs (SNAP, WIC, Food Distribution, Child Nutrition programs), USDA Agricultural Research Service, Children’s Nutrition Research Center and other Federal agencies (U.S. Centers for Disease Control and Prevention; National Institutes of Health), and professional groups (National WIC Association, School Nutrition Association, Association of State & Territorial Public Health Nutrition Directors). See the acknowledgements for a list of workgroup members.

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

The developmental process for these materials included two phases, each consisting of multiple rounds of focus groups. These focus groups provided formative input as well as feedback on the messages at key points in the developmental cycle. The focus group testing provided insights into what worked and what didn't work. The findings provided in this chapter 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.

Focus Groups

Thirty focus groups were held in eight States between December 2007 and July 2008 to guide the development of the initial set of messages and supporting content about milk, fruits and vegetables, and child feeding.

In December 2010 and May 2011, another 48 focus groups were held in 6 States to inform development of additional messages, supporting content, and communication tools for milk, whole grains, and child feeding. Table 1 contains a list of the locations for the focus groups. A total of 316 mothers and 146 children participated in these groups.

All participants (Table 2) 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 SNAP, NSLP, and/or WIC. Thirty-six percent of mothers in Phase 1 had achieved a high school education or less versus 48 percent of Phase 2 participants. The racial and ethnic characteristics of the moms were similar during both periods. However, more of the moms in Phase 2 focus groups were unemployed, 49 percent versus 41 percent in Phase 1. The portion of mothers who were married was similar in Phase 1 and Phase 2, 39 percent and 38 percent respectively; most mothers were between the ages of 18 and 34.

Table 1: Locations of Focus Groups

Phase 1

Round One (Dec 2007)	Round Two (May 2008)	Round Three* (July 2008)
Rochester, NY	Los Angeles, CA	Raleigh, NC
Baltimore, MD	Chicago, IL	Tampa, FL
Dallas, TX	Birmingham, AL	San Antonio, TX

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

Phase 2

Round One (Dec. 2010)	Round Two (May 2011)
Birmingham, AL	Baltimore, MD
Dallas, TX	Raleigh, NC
Chicago, IL	Phoenix, AZ

There were slightly more girls than boys in the focus groups. In Phase 1, 69 percent of the kids were either Black and Hispanic/Latino,

compared to 76 percent in Phase 2. See Table 2 for more demographic information about Phase 1 and Phase 2 focus group participants.

Table 2: Demographic Information of Focus Group Participants

Mothers	Phase 1 n=140	Phase 2 n=176	Total n=316	Children	Phase 1 n=73	Phase 2 n=73	Total n=146
Race/Ethnicity				Race/Ethnicity			
Black or African American	61	80	141	Black or African American	34	26	60
White or Caucasian	44	33	77	White or Caucasian	22	17	39
Hispanic or Latina	33	61	94	Hispanic or Latino	16	29	45
Other	2	2	4	Other	1	1	2
Age				Gender			
18-34	83	129	212	Boys	35	33	68
35-50	57	47	104	Girls	38	40	78
Marital Status				Age			
Single	57	83	140	8-year-olds	18	18	36
Married	54	67	121	9-year-olds	30	25	55
Separated or Divorced	29	26	55	10-year-olds	25	30	55
Level of Formal Education				Grade in School			
High School or Less	50	84	134	First grade	1	-	1
Some College	75	87	162	Second grade	4	14	18
College Graduate	15	5	20	Third grade	29	16	45
Employment				Fourth grade			
Not Employed	57	86	143	Fifth grade	23	26	49
Employed Part Time	31	38	69	Fifth grade			
Employed Full Time	52	52	104	16 17 33			
Participation in WIC, Free/Reduced Lunch, or SNAP/Food Stamps (at least one)				Participation in WIC, Free/or Reduced Lunch, SNAP/Food Stamps (at least one)			
Yes	90	154	244	Yes	50	58	108
No	50	22	72	No	23	15	38

Note: n indicates number of participants
WIC-Special Supplement Nutrition Program
For Women, Infants and Children

SNAP-Supplemental Nutrition Assistance Program

Phase 1: Overview of Research 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. 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. 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.

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 with an activity that 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. This influenced moms’ receptiveness to tips and messages suggesting these forms of produce. Moms disliked tips that referenced using canned or frozen fruits and veggies. 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.



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.

Testing included related photos for messages and support content (tips, advice, and guidance). Across all groups, mothers generally did not spontaneously react to the pictures. When prompted for feedback about the images, most mothers appreciated the expressions on the children’s faces and photos of happy kids. The figures in the following sections show one of the photos tested with messages; however, all photos are in the appendixes.

Discussions With Mothers of Preschool-Age Children

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. Participants connected strongly with the role modeling messages “they learn by watching you” and “they take their lead from you,” noting that they were believable and conjured up strong mother/child images.

“...I think of things my parents used to do. 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), and bulleted tips. Mothers connected with phrases in the narrative and bulleted tips that expressed moms’ desires to teach their kids and help them have a healthy future.

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.



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 B for full supporting content related to role modeling.

Less than half of mothers of preschoolers reported eating together with their family on a regular basis. Some mothers ate breakfast or lunch with their children, but dinner was the meal most frequently eaten together.

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,) addresses issues, barriers, and motivators that emerged during 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. Aspects of the supporting content that moms particularly liked were tips about focusing on each other at mealtimes and making meals a stress-free time. Moms also liked role modeling tips in this content, specifically the tip to “eat fruits and veggies and your kids will too” tip.

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.



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. They feel good about doing something “grown-up.”

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

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 “cooking” activities that 2- to 5-year-olds could do safely. The supporting content provides moms with age-appropriate cooking activities for 2- to 5-year-olds. Moms felt that these activities were not too time-consuming or too messy. Including hands-on activities for kids during nutrition education classes may help to increase mother’s confidence in involving kids in preparing foods.

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 that children are responsible for

how much and whether they eat.¹⁸ 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 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. These messages are designed to motivate moms to let children decide how much to eat when introducing new foods and allow 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.

Few mothers in our focus groups 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.



Figure F: Sample of Supporting Content on Letting Kids Serve Themselves.

Your kids will learn many useful life lessons when you let them serve themselves...They learn to make decisions about which foods and how much to put on their plates, they learn to be more aware of when they are hungry and when they are full....

* See appendix B for full text.

Moms were especially responsive to the statement "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. Photos demonstrating this method may help to convince mothers to try it as shown in Figure F.

In our early focus groups, 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.



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.

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.

Mothers responded well to tips about encouraging and praising children when they try new foods. The tip that suggested offering new foods prepared in different ways was particularly well received.

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.



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.

The supporting content included narratives written in the voice of a mother, as well as bulleted-style "how-to" information. Reactions suggest that mothers are interested in ideas on how to adopt DFR. The content increased many mothers' interest in developing their children's independence and lifelong skills beyond healthy eating.

Discussions With Mothers of Elementary School-Age Children

Moms in our focus groups 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. 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 B).

“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 G).

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.

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 G: 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.

* See appendix B for full text.

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



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

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

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

The supporting content emphasizes that fat-free and low-fat milk have the "same nutrition with less fat" than whole milk (Figure H). 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 did not like/consume milk themselves.



Figure H: Sample Supporting Content for Milk.

One Mom’s Story:

Fat-Free and Low-Fat (1%) Milk Are Healthier Than Whole Milk. Who Knew?

Milk helps kids grow strong. So it’s important to me that my kids get the milk they need every day. I used to believe that fat-free and low-fat milk were not as healthy as whole milk. Then I learned that they have the same calcium, protein, vitamin D, and other nutrients, just less fat. The saturated fat in other milk increases the risk of heart disease.

* See appendix B for full supporting content related to milk.

Discussions With 8- to 10-Year-Old Children

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.

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



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.

“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 based on these categories.

Phase 2: Overview of Research Findings

When asked which foods are important for children’s healthy growth and development, mothers in Phase 2 mentioned fruits and vegetables most often, followed by meat or protein and milk. They mentioned whole grains or whole-grain varieties of certain foods (e.g., whole-grain bread) less often. Discussions reinforced that for many mothers, knowledge is limited about why whole grain foods are healthy and/or important. Messages that described the health benefits of milk or whole grains were especially appealing to moms, particularly when the information was new to them.

Mothers said they struggle at mealtimes with getting their preschoolers to sit down to eat, to eat certain foods, or to eat overall. At the same time, they thought mealtime was quality time they could spend with their kids.

Kids (8- to 10-years-old) agreed that good health is important. Their top reasons for being healthy centered on not being overweight,

having energy, having strong bones, and not having health problems. These factors were similar to those revealed during the Phase 1 research.

Kids in the focus groups identified being physically active and eating fruits and vegetables as key things they could do to be healthy. Drinking milk, water, or juice was also mentioned, although no children suggested fat-free or low-fat milk.

Discussion With Moms of Preschoolers

Building on the lessons learned in the earlier research, we segmented mothers by the extent to which they agreed (or not) with the statement, “It is important for preschool children to eat at every meal, even if they say they are not hungry.” Mothers who voiced any disagreement with the statement were termed “Amenable” to DFR. Those who were ambivalent or voiced soft agreement were identified as “Less Assured” to DFR.

We tested six new messages and supporting content with both groups. The goal was to help mothers understand the value of DFR, motivate them to try the behaviors, and implement the behaviors successfully. The tested messages included variations on the DFR concepts including:

Moms choose what’s on the table. Let kids choose what’s on their plates.

Moms decide what foods. Kids decide how much.

Across segments, the idea that children should choose how much to eat was met with significant skepticism. Although most mothers agree that their preschool children are able to sense when they are full, many do not agree that children at this age have the ability to decide when they have had enough to eat.

“You have to decide which things they can have more of. It’s not appropriate for them to decide how much to eat. She is not going to say, ‘I want more broccoli than pasta.’ ”

-Amenable Mother of Preschooler, Chicago, IL

Overall, our research showed that less assured mothers responded to messages that were emotionally appealing, while amendable mothers preferred those with actionable tips and guidance. The messages below address mothers’ concerns in ways that are both reassuring and practical.



Division of Feeding Responsibility Messages

Let go a little to gain a lot. It’s natural for moms to worry about their preschoolers’ eating habits. Offer healthy foods and let your kids choose from them. They’ll be more likely to enjoy mealtime and eat enough, so everyone is happier. They learn to be independent.

Mothers who are more amenable to DFR found the message “Let go a little to gain a lot” appealing because it suggested they would gain immediate benefits. However, the age of the child was an important mediating factor. Moms

of younger children (ages 2-3) were reluctant to trust their child to be fully independent yet. Nonetheless, these moms were open to their kids learning how to be independent. Moms also found comfort and reassurance in the statement “It’s natural for moms to worry about their preschoolers’ eating habits.”

To help mothers further understand the benefits of DFR, the supporting content “One Mom’s Story: The Big Pay Off” provided reasons for using the DFR approach (e.g., it makes mealtimes more pleasant, helps kids become independent and learn to eat healthy now and for life). Mothers found these reasons both compelling and believable.



Division of Feeding Responsibility Messages

Think beyond a single meal. Keep in mind what your child eats over time. Meals and healthy snacks give children several chances every day to eat a variety of foods. If your child eats only a little or nothing at one meal, don’t worry. He’ll make up for it with other meals and snacks to get what he needs for good health over time.

Overall, mothers expressed mixed opinions about letting their children choose whether to eat. Some mothers were open to the idea of letting children decide if they want to eat at each meal, especially when considering what their child has eaten over the course of a few

days. The message “Think beyond a single meal” resonated with amenable moms because it echoed current behaviors.

The supporting content for this message provided “Advice from a Nutritionist,” which mothers highly valued. Many thought nutritionists knew more than doctors on the subject of children’s eating because the topic of healthy eating is the nutritionist’s entire vocation. Many mothers also took particular notice and felt relieved to read that it is normal for children to sometimes not eat or to eat just one food.



Cooking and Eating Together Messages

Enjoy each other while enjoying family meals.

Easygoing meals nourish the body and make stronger family connections. Keep things relaxed, and let your little ones select which foods to put on their plates and how much to eat from the healthy choices you provide.

Similar to Phase 1 findings, mothers associated mealtime with togetherness and family time. Mothers also saw mealtime as an opportunity for communication. The message “Enjoy each other while enjoying family mealtimes” addressed these motivating factors and resonated with moms across segments, especially “Less Assured” mothers.



Figure I: Supporting Content on Cooking and Eating Together

Lead the Way: Creating a Relaxed Mealtime Experience. In our home, we have two rules when it comes to mealtime: Eat as a family whenever we can, and keep it relaxed.

** See appendix B for full supporting content related to child feeding.*

Our research suggests that many moms often find mealtime “stressful.” Therefore, the idea of relaxed meals has wide appeal. Providing tips for how to create this environment was well received. In the supporting content “Lead the Way: Creating a Relaxed Mealtime Experience” (Figure I), the most important reminder of all was to remove distractions. In particular, many said that they needed reminders not to text during meals, as they find themselves busy with their cell phones and, as a result, sometimes inattentive during meals.



Division of Feeding Responsibility Messages

Feed their independent spirit at mealtimes.

Each meal with your preschoolers is a chance to help them to grow to become more independent. Let them make their own food choices from the healthy foods you offer. Start early and you'll help them build healthy eating habits for life.

The mothers who were more amenable to DFR gravitated toward this message. These mothers heartily agreed that having choices—but within limits—makes children more independent. As in past research, several mothers were thinking ahead to kids eating at school when they thought about independence.

The supporting content “Feeding Kids’ Independence at Mealtime” provides many tips that moms saw as valuable—even those that prompted disagreement. Specifically, the idea of taking children grocery shopping was appreciated as a good way to involve them in food choices, but was also seen as a hassle by many mothers. Overall, many related to the desire to help foster their children’s independence and welcomed new and creative ways to do so. For example, a few mothers particularly liked images showing a mother with her child, helping to hold foods as children served themselves (Figure F).

Several messages did not resonate well with mothers. For example, some mothers praised the message “Moms choose what’s on the table. Let kids choose what’s on their plates,” but a few voiced hesitations about the practicality of offering solely healthy food at every meal.

The message “Moms decide what foods. Kids decide how much.” did not resonate with either group and elicited a particularly negative response from Less Assured mothers. The concept of children deciding how much food to take was contentious. The concern that children may continue to eat foods they enjoy even when they are full persisted.

Among the supporting content, mothers rejected material that included recipes they perceived as impractical, ideas that seemed too regimented or pressure filled, or suggestions they felt may potentially lead to wasted food.

Discussion About Fat-Free and Low-Fat (1%) Milk

Consistent with our earlier research, we found that taste and the belief that whole milk contains more nutrients than lower fat varieties posed strong barriers to consumption of fat-free or low-fat milk. Many mothers believed that fat-free milk is watered down or diluted, and that something (other than fat) had been removed, leading to fewer nutrients.

“Skim milk is watered down. It isn’t as thick. It maybe doesn’t have as many nutrients.”

-Chicago, IL

While some participants cited whole milk’s fat content as its primary drawback, many also believed that their children need the fat—or that they are active enough to burn it off.

Many mothers reported that they drink the

same type of milk that they offer their children. However, many admitted to not drinking milk at all, and there was also a large portion who said they drink a different type of milk than their children, including lactose-free milk and soy milk. Overall, mothers typically consume milk considerably less often than their children. We tested message concepts that address these barriers and misconceptions, and specifically target mothers of preschool-age children or mothers of elementary school-age children. Some of the messages apply to both audiences. These audience-specific concepts address the mindsets of moms, tap into their emotions, and provide uniquely relevant information to motivate and inspire each group of moms to take action.



Milk Messages for Both Moms of Preschool-Age Children and Moms of Elementary School-Age Children

There's no power like Mom Power. You are a positive influence in your children's lives. Help them develop healthy eating habits for life. Offer them fat-free or low-fat (1%) milk and yogurt at meals and snacks.

Message concepts that evoked feelings of empowerment and spoke to the influence mothers have on their children's long-term health resonated most strongly. These findings reinforced Phase 1 research that showed mothers' desires to help their children have healthy futures.

The "Mom Power" message resonated very strongly with both mothers of preschool-age children and elementary school children. They agreed with and appreciated the premise that they have a great deal of influence over their children's behavior and the habits they form. Most moms specifically pointed to the phrase, "developing healthy eating habits for life," as the reason they found this message convincing.

'Mom power,' 'positive influence'... and 'healthy eating habits for life,'... If you combine all of them, they all send a positive message.

– Mother of preschooler, Baltimore, MD

Moms found the supporting content for this message, "One Mom's Story: Using 'Mom Power' for good," relatable, informative, and helpful. Many also liked that it includes information about how they can increase their families' consumption of low-fat and fat-free milk and milk products. The two photos included in the content received positive feedback, particularly the one showing the little girl pouring milk (see appendix B).

The "Moms often ask (Q&A re: serving size/recommendations)" helped some mothers realize that their children were not consuming enough milk. Most mothers also liked the suggestion to "Offer foods made from milk – like low-fat or fat-free yogurt," a milk product many already consume and enjoy.



Milk Messages for Moms of Preschoolers

1: Strong bodies need strong bones. Give your preschooler fat-free or low-fat (1%) milk or yogurt at meals and snacks. They're packed with vitamins, minerals, and protein for strong, healthy bones.

2: Mom is a child's first teacher. You teach by doing. Every time you drink fat-free or low-fat (1%) milk, or eat low-fat yogurt, you're giving your kids a lesson in how to eat for better health. It's a lesson they can use for all their lives.

Overall, mothers viewed milk as “very important” for their children’s health, especially for the development of strong bones. The message “Strong bodies need strong bones” reinforced these views, and mothers were particularly drawn to the brief, straight-forward description of the nutrients found in milk and milk products. Many also commented that the little girl making a muscle in the photo is both “cute” and very fitting for the content of the message.

“Mom is a child’s first teacher” resonated deeply with moms because it reinforced their sense of empowerment and influence over their children’s lifelong health and well-being. Most participants also particularly liked the accompanying photo of a young child looking up to her mother, which provided an appealing visual of a mother acting as a role model for her child (See appendix B).

Better health is the ultimate goal. . . You want them to live long, healthy lives. . .you would hope you instilled in them enough in a positive manner that they would stick with it.”

– Mother of preschooler, Baltimore, MD

The supporting content for these messages elucidates the health benefits of milk, emphasizes that fat-free and low-fat milk have the same nutrients as whole milk without the fat, and provides tips for switching to fat-free milk. Mothers found the content particularly enlightening and informative. They especially appreciated learning information they did not previously know. They also liked the simple tips for making the switch to lower-fat milk.

Mothers did not readily receive the message “At age 2, switch your kids to low-fat or fat-free milk.” They needed more information to accept the idea that children do not need the extra fat.

The message “Love and nourish them” did not resonate with mothers of preschoolers. The message suggested that offering low-fat or fat-free milk products is a way for mothers to express love for their children. Mothers felt that the statement disregarded everything else they do for their children.



Milk Message for Moms of Elementary School Kids

Milk matters. Children of every age, and adults too, need the calcium, protein, and vitamin D found in milk for strong bones, teeth, and muscles. Serve fat-free or low-fat (1%) milk or yogurt at meals and snacks.

Mothers of elementary school children were particularly drawn to the message “Milk Matters.” They exhibited a strong appreciation for the health benefits described in this message. Mothers also thought the photo fit well with the message, particularly because it also features a glass of milk.

Many mothers expressed that they did not want milk to be the main drink at meals and snacks. Therefore, the messages “Make every sip count” and “Set the table with low-fat milk, and set the example” did not resonate for them. Furthermore, some did not find the latter message feasible since they do not set the table.

Discussion About Whole Grains

Overall, mothers expressed and demonstrated significant confusion and lack of knowledge about whole-grain foods, their health benefits, and how to identify them.

[Whole grain is] brown and it's almost everything.”

-Mother of preschooler, Phoenix, AZ

The benefit mothers most frequently associated with whole grains was digestive health and regularity, but many struggled to name any other benefits. Most mothers reported that they buy at least some types of whole-grain foods, particularly breads, cereals, pasta, rice, and tortillas. Conversely, many who buy popcorn were not aware that it is a whole-grain food. While some mothers indicated that their children eat whole grains, mothers demonstrated confusion about how to correctly identify whole-grain foods. This suggests that they and their children are likely consuming far fewer whole grains than moms reported.

Mothers most often stated that they and/or their children do not like the taste of whole-grain foods. As a result, many feared that these foods (and, therefore, money) would be wasted because their families would not eat them.

Based on these findings, we tested message concepts designed to provide mothers with the information, skills, and motivation to increase their own and their children’s consumption of whole grains and offer them at family meals and snacks.

Mothers consistently reacted positively to messages and supporting content that provided information that was new to them, especially regarding the health benefits of whole grains. They also appreciated examples of whole-grain foods. All of the final messages and content reflect these findings, in addition to other qualities that mothers found appealing.



Whole Grains Messages for Both Mothers of Preschool and Elementary School-Age Kids

1: Give yourself and those you love the goodness of whole grains.

Make at least half of the grains you eat whole grains – such as bread, tortillas, pasta, and cereals. Whole grains are good for your heart and digestion, and can help you maintain a healthy weight and good overall health.

2: Whole grains make a difference.

Whole grains help keep your heart healthy and are good for digestion and a healthy weight. Choose foods with “100% whole wheat” or “100% whole grains” on the label. Or check the ingredient list to see if the word “whole” is before the first ingredient listed (for example, whole wheat flour). If it is, it’s whole-grain.

Mothers described the message “Give yourself and those you love the goodness of whole grains” as positive, “showing a lot of love,” and “speaking to the heart.” Mothers also liked the accompanying photo, which showed a mother and daughter, but no whole grains. They felt the photo exemplified the theme of the message well. Photos that showed only whole grains and no people elicited polar reactions. Although some liked to see examples of whole-grain foods, many thought the foods shown looked unappetizing.

Mothers cited the message “Whole grains make a difference” as the most informative and straightforward of the messages and consistently ranked this message above all others.

“I think there are [health benefits from eating whole grains]. I just kind of go with the hype. I don’t really know what they are.”

-Mother of preschooler, Phoenix, AZ

Recent research suggests that consumers with a better understanding of the benefits of whole grains – as well as a better understanding of how to identify whole-grain foods – are more likely to consume more whole grains. The supporting content “How To Tell If It Is a Whole Grain?” and “Whole grains: How much is enough each day?” both proved to be enlightening and instructive. Mothers often said they wished to take this information home to post on their refrigerator.

In the narrative “Discovering the goodness of whole grains,” mothers were especially responsive to the “doctor’s advice” to “Switch to whole-grain versions of foods like bread, cereal, pasta, and crackers,” and they appreciated the how-to information.



Whole-Grains Messages for Mothers of Preschool-Age Children

1: Start them early with whole grains.

It's easy to get your kids in the habit of eating and enjoying whole grains if you start when they are young. Whole grains give your kids B vitamins, minerals, and fiber to help them be strong and healthy.

2: Happy Kids, Happy Tummies. Serve your little ones whole-grain versions of their favorite bread, cereal, or pasta. It's a simple way to help them eat more whole grains. And, eating more whole grains that are higher in fiber can make potty time easier, too.

In the message “Start them early with whole grains,” the idea that introducing their children to whole grains when they are young will make the process easier when they are older rang true for most moms.

“For me, I think [starting early is] the best way you can enter the system for the first time because they don't know other flavors.”

– Mother of preschooler, Raleigh, NC

Many participants commented that “Happy Kids. Happy Tummies.” was “cute,” and they found the opening particularly “catchy.” The information that eating whole grains “can make potty time easier” was considered to be both important and personally relevant. The narrative “One Mom’s Story: Keeping my kids happy, healthy, and regular with whole grains” was well received for similar reasons.

Many mothers were interested in trying some of the ideas suggested in the supporting content “Fitting whole grains into your preschooler’s day.” In fact, some respondents found the ideas simple and questioned why they have not been doing some of these things already. Mothers often expressed particular interest in “Make a Healthy Pizza,” “Cereal Mixer,” and the general suggestion to “Offer Something Sweet.”



Whole Grains Messages for Mothers of Elementary School-Age Children

Start every day the whole-grain way.

Help your kids get their day off to a healthy start. Serve whole-grain versions of cereal, bread, tortillas, or pancakes at breakfast. Whole grains give your kids B vitamins, minerals, and fiber to help them feel full longer so they stay alert to concentrate at school.

Mothers particularly liked the idea of helping their kids “get their day off to a healthy start,” and agreed that it is important to do so. As with the other messages, they also like the information about the nutrients and health benefits found in whole grains, as well as the examples of whole-grain foods to serve at breakfast.

Mothers rejected messages and content that suggested whole grains would provide children with more, long-lasting energy. Many mothers believed that their children had too much energy already.

In our focus groups, many mothers said they did not look at ingredient lists or nutrition labels. Consequently, mothers disliked messages with a call-to-action to read ingredient lists, including “Whole grains first,” which advised mothers to look for words like whole wheat, rolled oats, brown rice, and other whole-grain ingredients. The message “Whole grains—make sure you’re buying the real thing” evoked skepticism, as many moms likened the ingredient list to other label claims on packages. Furthermore, messages that described label-reading as a quick way to identify whole grains, including “Grab whole grains on the fly,” was not considered realistic or practical, especially by mothers who shop with their children and describe the experience as hectic and time-consuming.

Information Seeking Practices/ Preferences

Discussions With Moms

Internet Access/Usage/Technology

We found a high use of computers among all mothers in our focus groups, and many also have smart phones. Indeed, all of the mothers reported having regular computer and Internet access. The primary point of access varied with their lifestyle. Those with office jobs reported that 80 to 90 percent of their online time was at

work, while stay-at-home moms with children or who worked from home spent almost all their computer time at home.

Mothers also reported going online for health information. For example, they looked up health questions and then weighed the information from a variety of sites before reaching a conclusion.

While few mothers indicated that they actively search for nutrition education, they exhibited a high level of interest in the supporting content. Some said they had seen similar information through recipe, cooking, or dieting Web sites, cooking shows, parenting Web sites or magazines, their pediatricians’ offices, or through materials from their children’s schools.

Mothers reported they would prefer—or be likely—to see nutrition information on Facebook, online resources/Web sites, email or e-newsletters, and online or television news. The types of information they reported preferring are meal preparation tips, recipes, parenting skills, and general and child-specific health information.

These findings underscored the need for communication tools that provide practical guidance, convey the benefits of adopting specific behaviors, and offer flexibility and variety to fit many lifestyles.

We tested three Web-based communication tool concepts designed to deliver information regarding whole grains, milk, and child feeding. The concepts included videos, rollover images, and widgets.



Reactions to Communication Tools

The video was seen as the best delivery method for demonstrations, and many mothers said they would watch a video if it taught them how to make a healthy dish that their family would like. However, mothers also indicated that they did not have the time to watch an entire video, or would prefer to read the information at their own pace.

“I like it. I like the audio visual aspect of it, that it talks to you and gets your attention.”

- Mother of preschooler, Raleigh, NC

The **rollover image** was well received. Mothers felt it was not intrusive, and they liked that they could choose their level of involvement with the image. They also liked that it did not require them to click on anything, since they associated click-through with unwanted pop-up ads and links to other Web sites. Some even described the rollover as a scavenger hunt of sorts and said that the rollover feature made finding the information fun.

“The rollover is good, it’s a surprise, and it’s a little treat to me.”

- Mother of elementary school-age child, Phoenix, AZ

The **widget** was among the tools that mothers indicated would be most effective for delivering information to mothers on healthy eating habits. Mothers found it simple, effective, and informative. The mothers also liked that the information was easy to access and required very little time commitment on their part. One concern with the widget was its resemblance to a pop-up advertisement. Many mothers reported that they avoid clicking anything that appears on the side or top of Web pages, and most cited negative experiences with spam and viruses. Another concern was that the information was not printable or something they could save for later reference.



“In the past, when I clicked on something I got 50 different spam emails. I wouldn’t click on it, even in my trusted Web site.”

- Mother of elementary school-age child, Raleigh, NC

Based on these findings, we developed rollover widgets that combined the features moms liked about the rollover and the widget (i.e., including multiple images of happy kids without the need to click). In addition, we created videos. The content of the rollover widget and videos came directly from the core messages and supporting content for milk, whole grains, and child feeding.

Discussions With Children

The focus groups with kids provide insights to aid in the development of supporting materials and tools for 8- to 10-year-old children. We tested interactive activity sheets containing content that motivated and assisted kids in implementing the behaviors addressed in the messages. In addition, we tested online game concepts that would engage the kids while improving their knowledge, skills, and motivation to consume whole grains, fruits, vegetables, and low-fat (1% or less fat) milk products.



Activity Sheets

The most successful content in the activity sheets featured fun, interactive components that drew children into the content. Children were also drawn to recipe or snack suggestions, pictures of foods they like, or activities that could be shared (e.g., jokes). For example, the activity sheet “Eat smart to play hard” featured a layered fruit/yogurt recipe and the “Trying Game.” The recipe was appealing to many kids, and was generally seen as likely to be tasty. Many kids said that they would indeed try the “Trying Game.” Importantly, the inclusion of “something to do”—and not too much writing required—was an important draw.

“Each page should have some game on it.”

– Elementary school age child, Birmingham, AL

Children responded negatively to activity sheets that they perceived as too difficult or required too much reading, appeared “babyish” or out-dated, or included images of foods they dislike. The finalized activity sheets feature fun, interactive activities that attract kids and strike a balance when it comes to delivering too little or too much information.

Computer Access/Games Kids Play

All children said they have access to a computer and the Internet—typically at home, school, or both.

For learning, math-related Web sites were top of mind. Specific Web sites children said they visited included Multiplication.com, MathPlayground, CoolMathGames, and other more general sites like StudyIsland and FunBrain. A few mentioned their school or school district’s Web site as well. Kids also reported using computer games, especially those ‘approved’ by their parents and schools.

Be the DJ and Field Day Fuel Up Challenge.

Research indicates that when communicating with children, interactive tools are often most successful, and there is growing evidence of the effectiveness of games. We tested two nutrition game concepts designed to inspire kids to eat more fruits and veggies, low-fat milk products, and whole grains. Both concepts included suggestions such as “jump up and down 5 times” to get kids moving.



Be the DJ



Track and Field Fuel Up Challenge

In *Be the DJ*, players mix in different sounds and beats (represented by images of healthy foods) to accompany the rap. The game concludes with a message reflecting how the “crowd” liked the player’s music mix (e.g., “That was milky-smooth”).

Children said they liked *Be the DJ* because they like music. Participants also thought that the rap song in the game would be catchy and fun.

In *Field Day Fuel Up Challenge*, players compete in four different track and field events. For each event, they answer a question about healthy eating. The faster they answer correctly, the better their results. Players collect medals at the end of the game. Kids perceived it as the more challenging of the two games. Most of the children believed their teachers and parents would like this game concept the most. They also felt it was more like a track and field event instead of a field day.

“I liked it because if I answer questions right, I always feel good about myself, the Field Day Challenge just gave me that feeling. . . .”

- Elementary school age child, Phoenix, AZ

Both game concepts performed equally well in testing and were well accepted as games that are fun and educational. Based on these findings, its potential for use in the classroom, and associated costs, the Field Day Fuel Up Challenge was renamed “Track & Field Fuel Up Challenge” and is available at <http://www.fns.usda.gov/multimedia/games/trackandfield/index.html>.

