

Evaluation of a Social Marketing Campaign Targeting Preschool Children

Susan L. Johnson, PhD; Laura Bellows, MPH, RD; Leslie Beckstrom, MS, RD
Jennifer Anderson, PhD, RD

Objectives: To determine the effectiveness of a pilot social marketing program to increase preschoolers' willingness to try new foods. **Methods:** Four Head Start centers participated (2 experimental, 2 control) in a study using a quasi-experimental design. Experimental sites received a 12-week intervention developed using social marketing techniques. The program was evaluated via preference assessments, classroom observations,

and teacher surveys. **Results:** Increased preference for and willingness to try new foods were observed in children from the experimental sites ($P < 0.05$). The program was positively received by Head Start staff. **Conclusions:** A social marketing campaign is an effective method to reduce children's neophobia.

Key words: social marketing, neophobia, preschooler, food preference, Head Start

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It is well established that adequate food intake and good nutrition are critical to the physical, social, and intellectual development of children and to long-term health of adults. Important determinants of a person's food intake patterns are his or her food preferences and experiences with food and eating.¹ With the exception of an innate preference for sweet taste and the rejection of bitter tastes, humans acquire and modify their food preferences based on individual experience.² Food likes and dislikes play an important role in

influencing food choices. Children tend to prefer sweet foods and high-fat foods, while vegetables and foods of lower energy density are less preferred.³ Children also display evidence of physiological learning such that foods associated with high energy content come to be preferred, over time, over less energy-dense foods.^{4,5}

Repeated exposure to novel foods in a positive environment and adult and peer modeling increase food acceptance in infants and children.⁶⁻⁹ Conversely, limited exposure to a variety of foods seems to diminish food acceptance.¹⁰ Taken in conjunction with the theory that young children move through a developmental stage of food neophobia (fear of new foods), limited exposure to a variety of foods may significantly impact a child's health status and eating patterns both for the short- and long-term.² Not only are food preferences predictive of nutrient intakes, but early food choices are also predictive of adult food preferences.^{10,11} Therefore, it is reasoned that positively influencing food preferences during childhood may lead to the establishment of lifelong healthful food habits.

Susan L. Johnson, Associate Professor, Department of Pediatrics, University of Colorado at Denver and Health Sciences Center, Denver, CO. Laura Bellows, Department of Food Science and Human Nutrition; Leslie Beckstrom, Department of Food Science and Human Nutrition; Jennifer Anderson, Professor and Extension Specialist, Department of Food Science and Human Nutrition, Colorado State University, Fort Collins, CO.

Address correspondence to Dr Johnson, Department of Pediatrics, University of Colorado at Denver and Health Sciences Center, Denver, CO 80262. E-mail: Susan.Johnson@UCHSC.edu

In addition to biological and socio-environmental influences, commercial and media promotion of branded foods and beverages plays a significant role in the development of healthful habits.¹² Marketing of foods to young children usually includes positive and colorful environments with playful and appealing characters. Thus, it seems plausible that similar strategies which include integrated marketing tools and educational-based programming could be used to promote healthful dietary behaviors.

With these factors in mind, the Colorado Nutrition Network, a statewide collaborative partnership, whose mission is to coordinate nutrition education for low-income Coloradans, began developing a nutrition education initiative to increase preschool-aged children's willingness to try new foods in an effort to promote healthful food choices. Based on the success of previous health promotion programs, the Network recognized social marketing approaches offer great potential for effecting behavior change and thus selected social marketing as its framework.¹¹⁻¹⁵ Social marketing principles, coupled with an extensive review of existing literature including child development, food neophobia, food acceptance, and food choice data, were initiated to inform program design. The program's consumer-driven orientation and audience segmentation have been discussed in previous publications.^{15,16} A pilot campaign was implemented to determine the program's appropriateness and effectiveness in achieving its primary goal of encouraging preschoolers to try new foods. Additionally, feedback was obtained from primary and secondary target audiences regarding campaign components. Results from the multifaceted formative, process, and summative evaluations conducted as part of the campaign are presented to provide insight regarding the benefits a pilot program with a rigorous evaluation plan can have in enhancing a campaign's overall effectiveness. This research was approved by the Human Subjects Committee at Colorado State University.

Overview: The Pilot Campaign

The Food Friends: Making New Foods Fun For Kids program is a blend of educational and marketing strategies^{16,17} with the primary objective of increasing children's willingness to try new foods

Figure 1
Food Friends Logo Developed
for the Social Marketing
Campaign



and to establish a strong foundation for a more healthful diet. The 12-week program consisted of child-driven nutrition activities, food-related children's storybooks, repeated opportunities to try new foods, an activity outline to guide the teachers, and parent newsletters.^{18,19}

To promote program continuity and to gain the attention of 3- to 5-year-olds within their world of fun and play, 7 characters called "The Food Friends" were created (Figure 1). They were characters developed with emulatory personalities that, when pretested, appealed to preschool-aged children. The Food Friends characters were incorporated throughout the program to introduce new foods and to encourage a positive feeding environment. Caricatures of The Food Friends were printed on posters, magnets, and placemats to act as visual reinforcements for the program's primary message that trying new foods is fun. A Food Friends theme song, a memory card game, and a puzzle were created to reinforce trying new foods across cognitive domains, to generalize reinforcement for trying new foods, and to give children additional vocabulary with which to communicate about trying new foods.^{18,19}

METHODS

Each educational activity was designed to support learning skills for preschool-

aged children including fine and gross motor control, listening and language skills, sensory evaluation, and problem solving. Storybooks with a "try new foods" theme were selected to introduce food-related vocabulary, to increase role modeling, and to reinforce the program's theme.

Based on previous research studies, the strategy of repeated opportunities to try new foods was viewed as the most likely to positively influence children's food preferences.² Two foods, referred to as "indicator foods" (Daikon radish and Gouda cheese), deemed novel to at least 85% of the target population through food frequency questionnaires,²⁰ were served weekly throughout the program to examine whether repeated exposure increases children's acceptance of a novel food. Eleven other novel foods (>85% of the children had not consumed these foods) were served once during the program to give children exposure to a wider variety of foods as well as to provide multiple opportunities to explore, taste, and eat new foods in a positive feeding environment. For details regarding the selection of these foods the reader is referred to our previously published research.^{18,19} One nutrition activity and one storybook were scheduled each week along with 3 opportunities to try new foods. Limited parent reinforcement was provided through newsletter articles.

Further, an integrated marketing mix was developed which incorporated strategies to reach the primary target audience (ie, low-income preschool-aged children) and a secondary audience (the children's parents). For the children, the social marketing "product" was a child-friendly, colorful, interactive program designed to increase willingness to try new foods which took place in 2 channels: primarily in the Head Start center and with reinforcement in the home via parent education. With regard to the placement strategy, it was recognized that the Head Start program was an ideal avenue to reach low-income preschoolers and their parents. Head Start programs require the offering of new foods to their participating children, although the suggested frequency and consistency are somewhat ambiguous. Many parents, during the formative evaluation stage, singled out Head Start centers as a "good" place to receive nutrition education.

The program was provided free of charge to participating Head Start centers; however, it required participation and time from teachers to implement. To lower children's fear (ie, the "price" of trying new foods for the children) a reinforcing environment framed new foods as fun and enjoyable. The parent newsletters promoted the concept of offering new foods in a consistent and persistent manner while providing parents with successful strategies for introducing new foods to their children. Promotional strategies included the development of the food caricatures, the inclusion of the program's new foods at lunch and/or snack times, incentive items to take home, parent newsletters, and a community event.

Subjects and Recruitment

Prior to starting the pilot program, 4 Head Start centers (2 urban and 2 rural) were recruited to participate as either experimental or control sites during the 12-week pilot campaign. Head Start centers located in areas accessible to local branches of the Colorado Nutrition Network were selected based on convenience (2 in the Denver metropolitan area and 2 in the San Luis Valley). A quasi-experimental design was employed; and sites were matched according to rural and urban characteristics, age of children, and center size. Head Start centers that were classified as experimental sites (one urban and one rural) received all components of the 12-week pilot program in addition to nutrition education components provided by their current Head Start curriculum (as required by federal performance standards). Control sites (one urban and one rural) were not exposed to the social marketing campaign, but may have had nutrition education delivered as part of the requirements for the Head Start standards. One classroom from each Head Start center participated in the evaluation process. Other nutrition education provided outside the Food Friends program was not documented in either the control or experimental classrooms.

Children's Assessments

In order to determine the overall success of the 12-week pilot program in encouraging children to try new foods, as well as to pinpoint any problem areas in the campaign, comprehensive formative,^{18,19} process, and summative evalua-

tions were executed. Immediately prior to the start of the campaign, a food preference assessment was conducted in the 4 evaluation classrooms as a pretest of children's willingness to try new foods and to evaluate their liking for a panel of new and familiar foods prior to the administration of the intervention.²¹ Before the assessment, teachers familiarized children with the procedure and introduced the interviewer. Subsequently, children were asked to participate in the food preference assessment individually in a corner of the classroom. Parents, peers, and Head Start personnel were not in proximity during the assessments to avoid biasing the outcomes.

Each child was asked to taste 5 familiar and 4 novel foods in a self-selected order. The foods selected for the panel included broccoli, carrot, Daikon radish, Gouda cheese, dried papaya, savory cracker, sugar cookie, turkey ham, and water chestnut. Therefore the panel included sweet and savory foods, fruits, vegetables, protein, and program indicator foods. After tasting a food, children were asked to place the food in front of one of 3 cartoon faces that best described how they thought the food tasted: a smiling face (yummy), a neutral face (just ok) or a frowning face (yucky). Refusals to taste a food were recorded. After the child tasted and placed each food in front of a face, the child focused on each category (yummy, just ok, yucky) and rank-ordered the foods within the category. The child was asked to select and taste the food in front of the yummy face that he or she liked the best. That food was then removed, and the question was repeated for each of the remaining foods. This procedure was repeated for each of the 3 categories. Once the procedure was complete, the rank for each category was combined to establish a complete rank order for all 9 foods (1 = least preferred and 9 = most preferred).

The food preference assessment was conducted in the same manner at the postintervention evaluation immediately upon completion of the 12-week campaign. To determine if any measured behavior change would be maintained and to ensure reliability of the food preference assessment, a follow-up assessment was completed 10 days postintervention.

Classroom observations to track

children's behaviors related to trying new foods occurred in the 2 experimental classrooms each day an indicator food was served. Classroom teachers were trained to record each child's behaviors when presented with a novel food. Touching, playing with the food, smelling, putting the food in the mouth and spitting it out, or putting the food in the mouth and swallowing it were defined as behaviors related to trying foods and were chosen based upon provider reports of children's behaviors at mealtime. Each behavior was chosen and defined to be mutually exclusive. Each teacher was asked to track the same 4-5 children over the course of the entire intervention. Classroom teachers were instructed to record all behaviors as a child could display multiple behaviors at one sitting (eg, playing with a food, smelling it and then putting it in his or her mouth).

Teacher Evaluations of the Program

The effectiveness and appropriateness of program materials were monitored through teacher use and ratings during the campaign. Classroom teachers were asked to complete a questionnaire after week 6 of the campaign. Teachers were asked which activities they enjoyed most/least, which activities they felt were most successful in teaching the children about new foods, and activities they perceived the children liked best or that were resisted. Further, each teacher was asked to explain any specific problems encountered in administering the program. Likert scales were used (1=low and 5=high) to evaluate teachers' opinions about the clarity of instructions, the ease and difficulty of activities, teacher's attitude towards the activities, activity composition, the children's interest and excitement about the campaign, the children's participation, and the teacher's confidence in teaching the campaign activities. Lastly, teachers were asked to convey their views regarding the campaign's ability to reach its goal of encouraging young children to try new foods.

As part of the summative evaluation, teachers completed a questionnaire to evaluate activities from weeks 7 through 12 and the overall campaign. Teachers also were asked to discuss general impressions of the campaign and to recommend specific changes for improvement.

Table 1
Demographics of Experimental and Control Sites

Site	n	Sex		Age (mo)		Ethnicity	
		Males	Females	Mean ± s.d.	Range	Hispanic	White
Experimental Sites	26	16	10	55.2 ± 5.1	45-66	22	4
Control Sites	20	9	11	59.5 ± 3.6	45-67	9	11
Total	46	25	21	56.6 ± 6.3	45-67	31	15

Statistical Analyses

Analysis of variance (ANOVA using SAS PROC GLM) was conducted to analyze food preference data and food refusals for differences between groups at baseline (pretest) with main effects for age, gender, ethnicity, location, and group. The significance level was set at $\alpha=0.05$ for all analyses. Repeated measures ANOVAs were conducted using age, gender, ethnicity, location, and group (experimental and control) as between subjects factors, time (pretest, postintervention and follow-up) as a within subjects factor, and group x time, sex x time, location x time, and ethnicity x time interactions to test for differences in rank order of indicator foods (Daikon radish or Gouda cheese) and food refusals over time. In post hoc analyses, Tukey's honestly significant difference was used for testing differences between the control and intervention groups. Affective ratings (yummy, just ok, yucky) of indicator and all panel foods at each time point (pretest, postintervention, and 10-day follow-up) were examined by chi-square analysis and significance was set at $P<0.05$. Lastly, independent samples t-tests were con-

ducted to determine whether differences in the number of panel foods placed in the affective categories (yummy, just ok or yucky) and the number of food refusals were different between groups at pretest, postintervention, and follow-up.

RESULTS
Food Preference Assessments

Two experimental and 2 control classrooms (one classroom from each Head Start site) underwent food preference assessments. Forty-six children (25 boys, 21 girls; mean age 56.6 ± 6.3 months) completed 3 assessments (pretest, postintervention, 10-day follow-up). Approximately 67% of the children were of Hispanic origin ($n=31$), and the remaining children were Non-Hispanic white ($n=15$). Demographic data for child participants are presented in Table 1.

No difference between groups was detected in rank order of indicator foods at the pretest (Table 2). Further, no differences with respect to affective ratings of foods were noted. When rank order of foods over time was examined, a significant group x time interaction effect was noted ($P<0.05$). Post hoc analyses re-

Table 2
Mean Rank^a Order at Pretest, Postintervention & Follow-up of Indicator Foods

	Pretest		Postintervention		Follow-up	
	Experimental	Control	Experimental	Control	Experimental	Control
Daikon Radish	5.6 ± 2.8	6.6 ± 2.5	4.9 ± 2.3 ^a	3.3 ± 2.4 ^{b*}	3.8 ± 2.4	3.6 ± 2.1
Gouda Cheese	3.7 ± 2.7	4.2 ± 2.5	5.4 ± 3.1	5.7 ± 2.5	6.5 ± 2.0	6.4 ± 2.3

Note.
^a Rank order where 1 = least preferred to 9 = most preferred
* Means with different superscripts are significantly different at $P\leq0.05$.

Table 3
Food Refusals and Affective Ratings

	Pretest n (%)	Postintervention n (%)	Follow-up n (%)
Total Taste Panel			
Refusals			
Experimental	28	1 ^a	3
Control	6	10 ^{b*}	0
Daikon Radish			
Refusals			
Experimental	2 (8)	0 (0)	1 (4)
Control	0 (0)	3 (15)	0 (0)
Liked (Yummy)			
Experimental	11 (44)	18 ^a (64)	14 (50)
Control	8 (33)	5 ^b (25)	8 (33)
Neutral (Just OK)			
Experimental	4 (16)	3 (11)	5 (18)
Control	7 (29)	3 (15)	2 (8)
Disliked (Yucky)			
Experimental	8 (32)	7 (25)	8 (29)
Control	9 (38)	9 (45)	14 (58)

Note.

* Numbers with different superscripts are significantly different ($P < 0.05$).

Daikon radish is one of 9 foods included in the total taste panel.

vealed that the ranking for Daikon radish at postintervention in the experimental group was significantly higher (more preferred; $P < 0.01$) than in the control group. However, no change in rank order from pretest to postintervention for Daikon radish was noted for the experimental group. No significant differences in rank order were found between groups at follow-up though children in the experimental group continued to rank Daikon radish higher than did children in the control group.

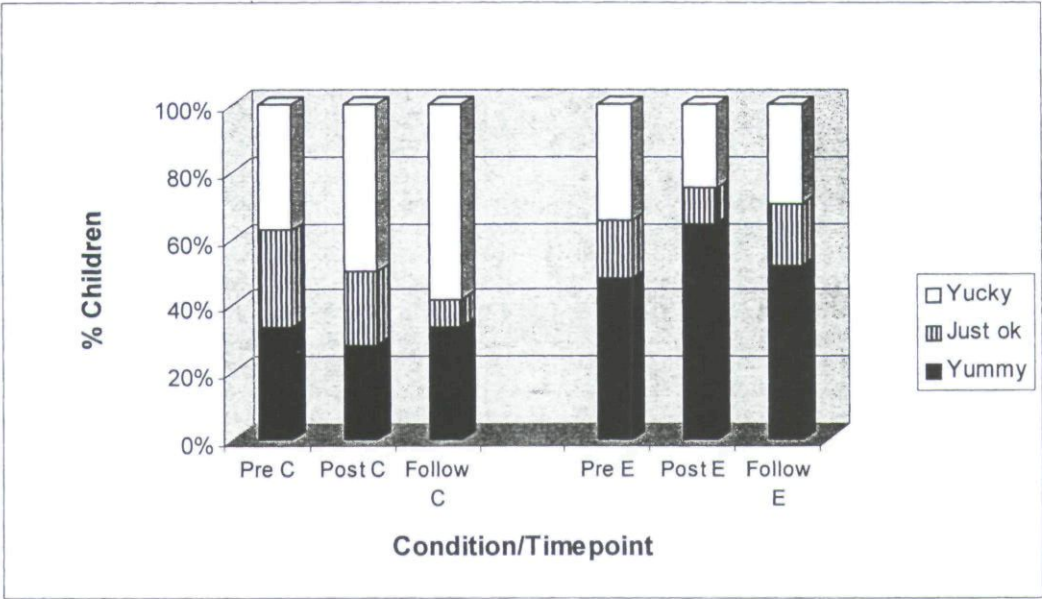
A significant main effect for time was noted for the ranking of Gouda cheese (the other indicator food, $P < 0.05$). Children in both the experimental and control groups ranked Gouda cheese as more preferred over time.

When the number of food refusals was analyzed by group over time, there was a significant group \times time interaction ($P < 0.05$): refusals declined from pretest to postintervention in the experimental group. At follow-up there were no differences between groups in food refusals as the number of refusals was quite small in both groups (Table 3). When the number

of children who placed the indicator foods in liked category (yummy) were examined, significantly more children in the experimental group rated Daikon radish as liked compared to control children ($\chi^2 = 9.9$, 3 df, $P < 0.01$; Table 3 and Figure 2). There were no differences between groups, over time, for the other indicator food, Gouda cheese. In fact, more than 50% of children in both groups liked Gouda cheese at the pretest, suggesting that it was a similar enough to other cheeses to be considered a familiar food.

When examining children's liking for the familiar vegetable broccoli (which we assumed to be disliked based upon parent reports), children in the experimental group rated broccoli as liked (yummy) more often at postintervention ($\chi^2 = 8.6$, 3 df, $P < 0.05$) than did children in the control group. By follow-up, a greater percentage of children in the experimental group rated broccoli as liked (64% and 46% for experimental and control groups, respectively), but the difference was no longer significant as the control group's ratings also increased with each assessment (from 39% at pretest to 46% at follow-up).

Figure 2
Percent of Children Placing Daikon Radish into Categories^a by Group^b at Various Timepoints^c



Note.

a Categories: Liked (Yummy), Neutral (Just OK) or Dislike (Yucky)

b Groups: C = control and E = Experimental

c Timepoints: pretest, postintervention, and follow-up (Pre, Post, Follow)

due perhaps to repeated exposure.

When examining results for the entire food panel, there was a tendency for children in the experimental group at the postintervention time point to rate more foods in the liked category ($P<0.08$) compared to control children and for control children to rate more foods in the disliked category at follow-up ($P<0.10$).

Classroom Observations

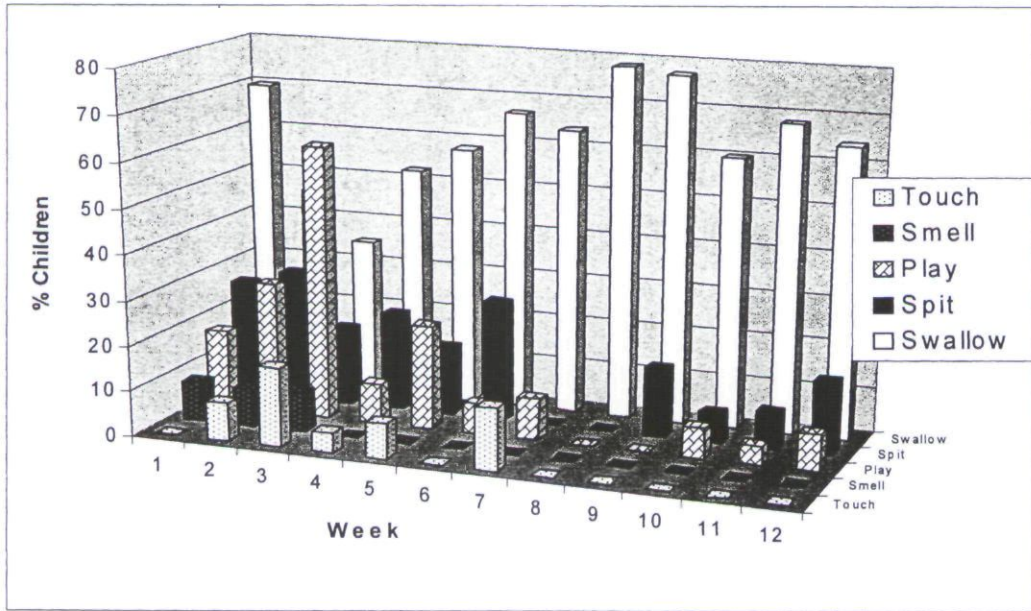
Further confirmation of the efficacy of this program is demonstrated by the data related to children's food-seeking or "sampling" behaviors. The following behaviors—smelling, touching, playing with, spitting out, and swallowing the indicator food—were tracked. The time course data for behaviors displayed by children in the experimental group for exposure to Daikon radish over the 12-week intervention are displayed in Figure 2. At the

outset, some children used a strategy of pointedly touching and playing with the new food. Some refused to taste it whereas others initially swallowed it and then, in subsequent weeks, declined to eat the food. Children also initially demonstrated additional exploratory behaviors like smelling the food and putting the radish in their mouth and spitting it back out. Over the weeks, use of these exploratory behaviors declined as, concomitantly, an increase in the percentage of children who tried and swallowed the new food also occurred.

Teacher Surveys

Twelve teacher surveys were received from experimental site 1 (6 from teachers and 6 from teacher's aides), whereas 6 were returned by experimental site 2 (6 from teachers), yielding a 100% response rate for the teacher surveys. Mean

Figure 3
Percent of Children in the Experimental Group Displaying
Exploratory Behaviors^a Across the 12 Weeks of the Intervention



Note.

a Touch, Smell, Play, Spit Swallow

teacher ratings of ease of instruction, instruction clarity, activity uniqueness, children's interest and participation, and teacher confidence in imparting the curriculum ranged from 4.1 to 4.9 (out of 5 possible points with 5 = high). Overall, teachers responded positively to the program and its individual components and reported high ratings for children's interest and participation in the program. However, they also reported that it was too intensive for them to deliver the program and that the some activities were difficult for children to complete. At experimental sites, 16 of 18 respondents answered positively when queried regarding the success of the campaign in encouraging children to try new foods, whereas the remaining 2 teachers felt it was moderately successful.

Specific feedback and suggestions from teachers during the summative evaluation included (a) that offering new foods to children 3 times per week was difficult for the teachers to maintain because some

children were full and/or children grew tired of having the same foods, (b) that accessibility to some of the new foods was problematic in rural regions, (c) that some activities designed for children were not age appropriate (eg, one book with too much text), and (d) that for future sustainability and assessment of program effectiveness, the evaluation must be altered to one that could be performed by teachers in the classroom setting.

DISCUSSION

Effects of the Intervention on Children's Willingness to Try and Like New Foods

We confirmed, in an ecologically valid setting, that children can come to like new foods when given repeated and varied opportunities to explore, experience, and ingest new foods in a positive learning environment. In the experimental group, children's liking for a novel food (Daikon radish) increased significantly when viewed in terms of affective ratings

and their liking for the novel food was ranked significantly higher than that of children in the control group. When affective ratings for all foods in the preference panel were examined, the tendency, over time, was for affective ratings to increase in the experimental group and for the number of foods to be rated negatively to increase in the control group. It must be noted that one of the indicator foods, Gouda cheese, was liked or accepted by the majority of children ($\geq 80\%$) of both groups at the pretest evaluation of the intervention. This suggests that most children knew and perceived this food as liked, or similar to other liked foods (cheeses), before the intervention began. The results of the intervention also suggest that the willingness to try new foods can be generalized, to some extent, in that the rate of refusal to try new foods diminished significantly over the course of the intervention in the experimental group.

One question of great interest is whether repeated exposure to known, but less preferred, foods can impact children's food acceptance of these less accepted foods. It would be highly advantageous if this same strategy of increasing exposure in an environment that promotes children's learning and autonomy would deliver a dose that was sufficient to help children learn to prefer nutrient-dense fruits and vegetables that they currently do not accept. In this study, children's affective ratings for a familiar, but assumed to be disliked, vegetable (broccoli) also increased over time, despite the fact that broccoli was not a target food for the intervention. In fact, children in the control group also showed increases in affective ratings for the broccoli via exposure during the food preference assessments. Our findings confirm previous literature^{5,22} that suggested that children's liking for foods is largely a product of experience and that experience may overcome attributes of foods (like bitter taste and low energy density) which are considered to be impediments to the acquisition of food preferences.²³⁻²⁵ Wardle et al reported that exposure over a 2-week period resulted in increased liking and consumption of a less preferred vegetable in a randomized controlled trial involving 2- to 6-year-old children and their parents.²⁶ Our findings extend the previous research in that we demonstrated increases in liking for a less-preferred, known veg-

etable (broccoli) as well as increasing liking for a novel vegetable (Daikon radish). We also demonstrated the efficacy of increasing children's liking for vegetables and willingness to try new foods in the child care setting—a place where $>60\%$ of young children eat numerous meals each week.

Children's Strategies for Learning about New Foods

Through time course observations of children's behaviors when presented with new foods, a picture—or a natural history—of the strategies that children use to learn about new foods can be developed. It appears that children employ all their senses in exploratory learning to determine whether foods are safe to consume. This concept of "learned safety" has been described previously by Rozin and colleagues; however, the phenomenon heretofore has been undocumented.^{25,27} They suggest that children overcome neophobic responses to novel foods by ingesting small amounts of the foods and subsequently waiting for the physiological feedback to determine whether the foods are safe and desirable for consumption. Our data suggest that children use additional exploratory behaviors that are antecedent to the food's actual ingestion to aid in their determinations regarding the safety of new foods.

Many of these behaviors that children use are exactly those that adults report to be irritating and indicative of poor etiquette. These behaviors, often discouraged by adults in the name of good manners, appear to be those that children need to engage in to become interested in adopting new foods. It may prove to be advantageous to allow children to learn as they will, via a number of modalities at meal and snack times, to help encourage children to try new foods and thereby increase dietary variety and nutrient density of their diet.

Teachers' Responses to the Program

Evaluation of the program by teachers indicates that the program, in general, was positively received. Teachers from both experimental sites responded that the program was well designed, easy to follow and conduct with the children, appropriate in reinforcing the targeted behavior, and successful in increasing the children's willingness to try and recog-

nize new foods. Most campaign activities were found to be appropriate and engaging whereas qualitative data from teacher surveys indicated that the children participated, enjoyed the activities, increased their knowledge and acceptance of new foods, and expressed positive thoughts and feelings towards novel foods. That teachers responded positively and expressed confidence in the program; and their ability to utilize it is essential—many a nutrition curriculum has been designed that sits on a shelf because it is considered ineffective, uninteresting, or too difficult to utilize.

Resulting Program Modifications

Using the data gathered from the 12-week pilot social marketing campaign, the Network began identifying potential areas within the program that should be modified based on results from the food preference panel, classroom observations, and teacher surveys. Although providing repeated opportunities to try new foods was a key aspect of the program, feedback from pilot project teachers suggested that offering new foods 3 times per week was too frequent. Therefore, the program has been adjusted to 2 new food offerings per week. Further, the number of times the 2 indicator foods are served has been decreased from 12 to 8 times because pilot data indicated that consumption of the indicator foods peaked by week 8, and previously published research suggests that 8 times is adequate to promote increased liking of novel foods.² An alternate food list containing 17 optional new foods that could be used as substitutes for program foods (other than the indicator foods) has been provided to address seasonality and/or accessibility issues encountered particularly in rural areas.

Based on the results from the pilot program's evaluation, several changes to the nutrition activities and storybooks designed for the social marketing campaign were also deemed necessary. Activities least favored by the teachers were either modified or replaced. Teachers also asked for more flexibility in the activity outline to replace or add activities if desired. In order to address this issue, 9 additional activities have been provided that can be used to replace or add to current activities in the program. Further, a comprehensive, bilingual parent component, Family Fun with New Foods,

has been added. It includes educational handouts and enhancers to broaden the reach of the program beyond the classroom environment.²⁸

Lastly, for program sustainability the Network recognized that the evaluation component needed to be something that the teachers could conduct in the classroom. Currently, a nutrition activity entitled the "Food Friends Tasting Party," scheduled at the completion of the program, is under development as the primary evaluation tool. Teachers introduce 6 foods—2 familiar, 2 indicator foods, and 2 novel foods—individually to the children and record how many children "liked" the food, "didn't like" the food, or "didn't try" after the children have been offered each food. Teachers are able to use this as documentation in the classroom and are asked submit it to the Network so that we may continue to monitor usage and effectiveness of the program.

Additional information that should be collected to facilitate interpretation of our findings includes documentation of nutrition education provided currently within Head Start programs such that we improve our certainty that changes in children's willingness to try new foods are attributable to the Food Friends program. Further, collecting information regarding the reliability of teachers' reporting of children's behaviors will strengthen our confidence that teachers can serve as reliable channels for data collection regarding children's eating behaviors. These modifications are currently underway.

CONCLUSION

Skeptics of public health social marketing initiatives cite a lack of evaluation data demonstrating behavior change as a primary concern with respect to the value of social marketing campaigns.^{29,30} Although many campaigns have demonstrated excellence in increasing awareness and changing attitudes,^{29,30} fewer have been successful in effecting the desired behavior change. One viable strategy for helping a campaign achieve this goal is to develop and implement a pilot program that includes a comprehensive evaluation plan. As demonstrated by the Colorado Nutrition Network's Food Friends campaign, conducting a pilot program can provide an initial impression as to the

program's potential for changing the targeted behavior, a test of the efficacy of the campaign, and an assessment of the program's reception by those who are targeted to utilize the program. As time and budgetary constraints allow, future public health-oriented social marketing campaigns may benefit by using a similar approach.

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