

## Memorandum

**Date:** February 2, 2017

**To:** Stephanie Tatham, OMB Desk Officer, Food and Nutrition Service

**Through:** Christina Sandberg, Food and Nutrition Service, Information Collection Clearance Officer, Planning & Regulatory Affairs; Ruth Brown, United States Department of Agriculture, Office of Chief Information Office, Department Clearance Officer C.S.

**From:** Alicia White, Branch Chief, Nutrition Education and Promotion Branch, NPTAD, Child Nutrition Programs  
USDA – Food and Nutrition Service

**Re:** Under Approved Generic OMB Clearance No. 0584-0524 Request for Approval to Perform Formative Research to Develop an Educational After-School Curriculum to Teach Nutrition and Meal Preparation to Children Aged 8–12

The Food and Nutrition Service (FNS) of the United States Department of Agriculture (USDA) is requesting approval for formative research under Approved Generic Office of Management and Budget (OMB) Clearance No. 0584-0524 Generic Clearance to Conduct Formative Research.

This request is to acquire clearance to conduct formative research with students in 2<sup>nd</sup> through 6<sup>th</sup> grade (approximately ages 7 – 13 years old), their parents, and after-school program operators to obtain feedback about a cooking-based educational program, known as *Team Nutrition Cooks!*, which was developed to teach children nutritional lessons in an interactive manner. The purpose of this research is to (1) identify potential indicators of educational effectiveness, including changes in student's knowledge, attitudes, and behaviors toward food and cooking; (2) gather feedback from students on their experience with each program activity; (3) gain insights from program operators on curriculum implementation and processes; and (4) gather feedback from parents to optimize the development of take-home program materials. The following information is provided for your review:

1. **Title of the Project:** Formative Research on *Team Nutrition Cooks!*
2. **Control Number:** 0584-0524, Expires 09/30/2019
3. **Public Affected by this Project:**
  - Individuals/Households
    - Students currently in 2<sup>nd</sup> through 6<sup>th</sup> grade (approximately ages 7 – 13 years old) who attend afterschool programs (eligible for USDA Afterschool Snacks Program or the Child and Adult Care Food Program [CACFP])
    - Parents/caregivers of students who attend these programs

State and Local/Tribal Employees

- Program operators who serve schools and other afterschool program sites in low-income areas
- Principals of elementary schools or administrators of afterschool programs in low-income areas that offer free or reduced-price meals. Note: Principals/Administrators will only be involved in facility and lesson coordination for the study. Principals/Administrators will only be asked to review and provide consent to hosting the study via the Confirmation Letter (see Attachment L).

See Section 7, *Project Purpose, Methodology, and Formative Research Design*, for a description of the number of participants for each audience (students, parents/caregivers, and program operators) by research methodology (surveys, worksheets, focus groups, and in-depth interviews, respectively).

#### 4. Number of Respondents:

Table 4.1 – Consent/Assent Forms\*

Audience	# Participants
2 <sup>nd</sup> through 6 <sup>th</sup> grade students <sup>1</sup>	60
Parents/Caregivers of 2 <sup>nd</sup> through 6 <sup>th</sup> grade students <sup>2</sup>	60
Parents/Caregivers (for focus groups) <sup>3</sup>	60
Program operators (for IDIs) <sup>4</sup>	12
<b>Total</b>	<b>132</b>

\*Includes non-responders and those choosing not to participate. The parents/caregivers (for focus groups) have not been counted again because the total represents the unique respondents.

Table 4.2 – School/Program Approval\*

Audience	# Participants
School Principals or Out-of-school Program Administrators	3
<b>Total</b>	<b>3</b>

\*Includes non-responders and those choosing not to participate.

<sup>1</sup> Student assent will be obtained prior to completing the survey and is included in the estimated burden for the questionnaire/survey. It is estimated that of the 60 recruited to participate, up to 30 may not be available and/or choose not to participate.

<sup>2</sup> Parental consent will be obtained for students to participate in the study prior to any information collection. It is estimated that of the 60 recruited to participate, up to 30 may not be available and/or choose not to participate.

<sup>3</sup> All parents/caregivers of participating students will be recruited for focus groups, however only 30 will be invited to participate (up to 10 per location).

<sup>4</sup> No more than 12 program operators will be invited to participate in the study (up to 4 per location).

Table 4.3 – Research Activities by Audience

Target Audience	Research Activity	# Participants
2 <sup>nd</sup> through 6 <sup>th</sup> grade students	Pre-Intervention Survey	60
	Lesson Feedback Worksheets (5)	60
	Post-Intervention Survey	60
Program operators	Program kickoff meeting	12
	Lesson Feedback Worksheets (5)	12
	Demographics	12
	In-Depth Interviews	12
Parents/caregivers of students	Demographics	30
	Focus Groups	30

**5. Time Needed Per Response:**

Table 5.1 – Time Needed per Initial Recruitment and Consent/Assent Form\*

Target Audience	Time (minutes)	Time (hours)
Parents/caregivers for students	5	0.08
Parents/caregivers for focus group	5	0.08
Program operators	5	0.08

\*The time is an average response per respondent.

Table 5.2 – Time Needed for Research Activities by Audience

Target Audience	Research Activity	Time (minutes)	Time (hours)
Principals/Administrators	Review/sign confirmation letter	2	0.03
2 <sup>nd</sup> to 6 <sup>th</sup> grade students	Pre-Intervention Survey	15	0.25
	Lesson Feedback Worksheets (5)	8	0.13
	Post-Intervention Survey	15	0.25
Program operators	Program kickoff meeting	60	1
	Lesson Feedback Worksheets (5)	8	0.13
	Tracking Lesson Attendance	2	0.03
	Demographics	2	0.03
	In-Depth Interviews	30	0.5
Parents/caregivers of students	Review of informational email	2	0.03
	Review of recruitment email	2	0.03

	Demographics	2	0.03
	Focus Group	60	1.0

### 6. Total Burden Hours on Public:

Affected Public		(a) ID	(b) Screeners, Surveys	(c) No. Respondents	(d) Frequency of Response	(e) Est. Total Annual Responses per Respondent (c x d)	(f) Hours per Response	(g) Total Burden Hours (e x f)
State, Local/Tribal Employees	Program Operators	B	Program Operator Informed Consent	12	1	12	0.08	0.96
		P	Draft Agenda for Kickoff Meeting with Program Operators	12	1	12	1	12.00
		E	Lesson Feedback Worksheet for Program Operators	12	5	60	0.13	7.80
		F	Discussion Guide for IDIs with Program Operators	12	1	12	0.50	6.00
		K	Lesson Attendance Sheet for Program Operators	12	5	60	0.03	1.80
		H	Demographics for Parents and Program Operators	12	1	12	0.03	0.36
	Principals/Site Administrators	L	Confirmation Letter for Administrator/Principal	3	1	3	0.03	0.09
<b>Subtotal of Unique Public</b>				<b>15</b>		<b>171</b>		<b>29.01</b>
Individuals and Households	Parent/Caregivers	A	Parent/Caregiver Informed Consent for Child Participation	60	1	60	0.08	4.80
		I	Sample Informational Email to Parents/Caregivers	60	1	60	0.03	1.80
		J	Sample Recruitment Email for Parent/Caregiver Focus Group	60	1	60	0.03	1.80
		N	Parent/Caregiver Informed Consent for Focus Group	30	1	30	0.08	2.40
		H	Demographics for Parents and Program Operators	30	1	30	0.03	0.90
		G	Discussion Guide for Focus Groups with Parents/Caregivers	30	1	30	1	30
	Students 2 <sup>nd</sup> – 6 <sup>th</sup> grade	C	Questionnaire for Student Pre-/Post Intervention Survey	60	2	120	0.25*	30
		D	Lesson Feedback Worksheets for Students	60	5	300	0.13	39
<b>Subtotal of</b>				<b>120</b>		<b>690</b>		<b>110.7</b>

Unique Public								
Total				135	-	861	-	139.71

*\*Includes 2 minutes for providing consent*

*All numbers provided (column c) for consent/assent forms and surveys (column d) represent duplicate respondents that have already been counted.*

*Please note that Appendices M and O are supplemental materials for implementing activities, but are not used for data collection.*

**Total burden hours on public: 139.71 hours.**

**7. Project Purpose, Methodology, and Formative Research Design:**

Background

The U.S. Department of Agriculture’s (USDA) Food and Nutrition Service (FNS) administers the agency’s nutrition assistance programs. FNS’s mission is to provide students and low resource families better access to food and a more healthful diet through its nutrition assistance programs. Among these programs are the Child Nutrition Programs, including the National School Lunch Program (NSLP), School Breakfast Program (SBP), Summer Food Service Program (SFSP), and the Child and Adult Care Food Program (CACFP). The Child Nutrition Programs provide nutritionally balanced, low-cost, or free meals and snacks.

As authorized under Section 6(a)(3) of the Richard B. Russell National School Lunch Act, 42 USC 1755(a)(3), FNS provides training and technical assistance for school food service, nutrition education for children and their caregivers, and encourages school and community support for healthy eating and physical activity. These activities are implemented under the agency’s Team Nutrition initiative that is designed to improve children’s lifelong eating and physical activity habits by using the principles of the *Dietary Guidelines for Americans*.

Under this initiative, FNS is currently developing nutrition education lessons and materials that promote healthy eating habits among low-income (<185% Federal poverty guidelines) children aged 8–12 years old and assist them through food preparation activities. The goals of this curriculum are (1) to have children learn how to incorporate healthy foods into their everyday diet and (2) to motivate children to try new nutritional foods and play a more active role in eating a healthy diet. The curriculum includes five lessons, each focusing on a different recipe. Each lesson includes a take-home family handout for parents and caregivers, a video that explains the various cooking skills each child will have learned, and an activity guide used to help train the program operators on ways to facilitate the activity.

The above-mentioned lessons and related resources will support Team Nutrition’s behavior-oriented strategy of “providing multifaceted, integrated nutrition education for children and their parent/caregivers.”

### Purpose

The purpose of the proposed research is to conduct formative studies of the *Team Nutrition Cooks!* materials to assess the content, design, usability, appropriateness, and indicators for educational effectiveness for the target audience. Specifically, the objectives are to (1) assess whether the program and developed materials are suitable for the targeted students; (2) understand the potential for impact on students’ knowledge, attitudes, and behaviors toward nutrition and food preparation; and (3) identify and make changes to the materials to improve their effectiveness, appeal, and overall usability.

### Methodology/Research Design

This research will use a mixed-method participatory research approach to gain information from students, parents/caregivers, and after-school program operators. Methodology will include pre–post intervention surveys conducted with students, lesson-specific feedback worksheets (from students and program operators), focus groups conducted with parents/caregivers, and in-depth interviews (IDI) with program operators who are delivering the lessons. Three sites will be selected for hosting the study. To be eligible, sites must be participating in the USDA Afterschool Snack Program or CACFP. Table 4.1 highlights the total number of participants—of all target audiences—that will be recruited for the research approach.

#### *Pre–Post Intervention Surveys*

Surveys (see Attachment C) will be conducted with students in 2<sup>nd</sup> through 6<sup>th</sup> grade , participating in the *Team Nutrition Cooks!* program. Questionnaires will be given to students both before and after the curriculum has been administered in order to gather baseline data and assess any changes in students’ knowledge, attitudes, and behaviors toward foods or cooking. Each questionnaire will take approximately 15 minutes to complete (which includes 2 minutes for obtaining assent) and will be administered via computer tablets by qualified research staff. In order to account for potential attrition, up to 20 students will be recruited in each of the three sites ( $n = 60$ ) to obtain a final sufficient sample size of approximately 21–51 students.

#### *Focus Groups*

Following the implementation of the *Team Nutrition Cooks!* curriculum, focus groups will be conducted with parents/caregivers of students who participated in the program. One 60-minute group, with approximately eight to 10 parents/caregivers, will be conducted in each of the three sites ( $n = 24–30$ ). Ten parents/caregivers will be recruited to seat at least eight in each group. The focus groups will be facilitated by a trained researcher using a discussion guide (Attachment G) and used to gather feedback from parents/caregivers on the usability, content, and design of the family handouts as well as any observed impact the curriculum has had on their children’s attitudes or behavior at home. Each focus group will take place during the

afterschool program, while children are under program staff supervision and onsite to further accommodate parents' schedules.

#### *In-Depth Interviews (IDI)*

Following the implementation of the *Team Nutrition Cooks!* curriculum, IDIs will be conducted with program operators to gain insight on the usability and implementation process of the lessons, curriculum content, and any observed changes in student's attitudes or behaviors throughout the program (see Attachment F). We will conduct up to four 30-minute IDIs with program operators in each of the three sites ( $n = 12$ ). All IDIs will be conducted by qualified research staff and will be scheduled at the convenience of the program operators to further accommodate their work schedules.

#### *Worksheets*

Following delivery of each of the lessons both program operators and students will provide feedback on the lesson experience via worksheets (Attachments E and D, respectively). These data will be used to identify recipe- and lesson-specific information about what went well, what challenges were faced and how the lessons/recipes could be improved. Program operators will also be asked to track attendance of students participating in each lesson (Attachment K).

Table 7.1 – Number of Maximum Participants by Location and Audience

Site Location	A (Urban)	B (Suburban)	C (Rural)	Total
Recruited Students (8–12 years)	20	20	20	60
Recruited Parents/Caregivers	20	20	20	60
Recruited Program Operators	4	4	4	12
<b>Total Participants</b>	<b>44</b>	<b>44</b>	<b>44</b>	<b>132</b>

*\*Includes non-responders and those choosing not to participate.*

#### Design/Sampling Procedures

Three target sites (e.g., afterschool programs within elementary schools and out-of-school programs like the YMCA), from which the sample of student participants will be drawn, will be selected based on the following criteria:

- Sites must serve students in 2<sup>nd</sup> through 6<sup>th</sup> grade (approximately 7 to 13 years old)
- Sites must participate in the USDA Afterschool Snacks Program or CACFP
- Sites must provide sufficient facilities for program operation (i.e., space to support food preparation) and a hand-washing sink

Additional criteria will be also considered when selecting sites to conduct a study of the *Team Nutrition Cooks!* curriculum. The following criterion will be taken into consideration to obtain feedback from a diverse set of participants:

- Geographic diversity, according to FNS regions

- Representation from urban, suburban, and rural communities (one site per community)
- County-level and school-level demographics to account for an ethnically and racially diverse sample

The following plan details how each of these specifications will be met. Participants will only be recruited from these chosen sites (see *Recruitment and Consent* section for further information).

A database of sites will be compiled using publicly available data from the National Center for Education Statistics (NCES). This database will serve as the primary source of sites. Data from NCES sources will allow researchers to aggregate schools by number of students, students' race and ethnicity, number of students who qualify for free/reduced-price lunch, and school-level NCES locale code, which determines a site's place on the urban–rural continuum (<http://nces.ed.gov/ccd/commonfiles/localedescription.asp>). Once eligible sites are narrowed down, USDA will confirm that each of those sites participate in the National School Lunch Program or CACFP.

*Geographic Diversity.* A total of three sites will be selected, each from a different area classification (i.e., urban, suburban, or rural) and a different geographic region based on the FNS region designation (i.e., Northeast, Mid-Atlantic, West, Mountain Plain, Midwest, Southwest).

*Program Participation.* Sites will be selected based on the number of students who are eligible for the National School Lunch Program. Additionally, any site with fewer than 10 children participating in the after-school program or having less than 50% of students qualifying for free or reduced-priced lunches will not be selected.

#### Recruitment and Consent

Using the sampling plan detailed above, Fors Marsh Group (FMG) will use the following process to efficiently recruit respondents and encourage them to participate without the use of incentives. Sites that match the eligibility criteria will be initially contacted to gauge their interest. Following OMB approval, sites will be secured and principals or program administrators will be asked to review and sign a confirmation letter (see Attachment L) to ensure shared understanding of the expectations for study participation. FMG will also conduct a kickoff meeting with program operators (see Attachment P for a draft meeting agenda) to ensure consistency across study sites. Before any implementation of the curriculum or data collection occurs, informed consent/assent will be obtained for all participants.

#### Incentive

Each site will receive a stipend of \$750 to offset the costs associated with recipe ingredients, kitchen tools and equipment needed for each of the five lessons within the *Team Nutritional Cooks* curriculum. The cost of fresh food and non-perishable ingredients for all five lessons is



estimated at \$102<sup>5</sup>. The cost of kitchen tools and equipment for all lessons is estimated at \$448<sup>6</sup>. Additionally, the stipend will include a facility fee of \$150<sup>7</sup> to cover the cost of research staff using a conference room or library to conduct program operator interviews and parent/caregiver focus groups. All parent focus group participants will be provided with a bag meal, as the focus groups will take place during the after-school program during the dinner hour. The meal will be arranged by the research staff and is valued at \$5 per participant for a total of \$50 per site.

### Data Analysis

*Qualitative Data.* All focus groups and IDIs will be audio-recorded (with respondent permission) and transcribed. This text, along with descriptive data from the worksheets, will become the data for qualitative analysis. The qualitative analysis will focus on identifying language and elements and highlighting modifications needed for the curriculum by coding for emergent themes within the data. Findings will be considered descriptive and directional, but not definitive. No attempt will be made to generalize findings as nationally representative.

*Quantitative Data.* The surveys and data from worksheets will yield quantitative data that can be used for certain types of statistical analyses. Statistical software (such as SPSS or Stata) will be used to clean and organize the data before analyses. The analyses may include but are not limited to comparisons of means, *t*-tests, calculation of summary statistics, and cross-tabulations and any appropriate estimates of uncertainty. Although some statistics will be calculated, the convenience sampling procedures for the survey do not allow for results that are nationally representative and any point estimates may not represent the population at-large.

### Outcomes/Findings

Information and formative input gathered from specific target audiences through the research will help refine lesson materials—including activity guides, videos, and family handouts—to ensure they are easy to use, interesting, and have potential for a positive impact of students' knowledge, attitudes, and behaviors toward healthy foods and food preparation. Research summary findings may be published either electronically or in print, but such documents will not include information that personally identifies any of the research participants.

### **8. Confidentiality:**

Using the *Agreement on Security of Comments Form*, participants will be informed of privacy act provisions before providing any information. System of Record Notice FNS-8, FNS Studies and Reports, published in the Federal Register on 4/25/1991 at 56 FR 19078, covers personal

---

<sup>5</sup> Based on current grocery prices in the Washington D.C. area listed for each ingredient. Assumes ingredients will be shared across an average of approximately 15 participants.

<sup>6</sup> Based on prices for kitchen supplies such as skillets, peelers, measuring spoons, can openers etc. listed on a national retailer website. Assumes that major equipment and utilities (e.g. sink, heating source, tables/counters etc.) will already be in place at each site.

<sup>7</sup> Based on previous studies where it was determined that the average cost of community rental for a library or conference room in the school to be approximately \$50 per hour. A minimum of 3 hours per site will be needed for parent focus groups and IDIs with program operators.

information collected under this study and identifies safeguards for the information collected. Concurrent with OMB review, FMG will submit study protocols to an independent/external Institutional Review Board (IRB) – Chesapeake IRB – to ensure the protection of human subjects involved in this research. No information collection activities will begin until OMB and IRB approval is obtained.

Additionally, the research team will take several precautions to maintain the privacy of research participants including de-identification of information collected from all worksheets, survey outputs and session transcripts. We will not disclose any personally identifiable information in any report or presentation. The research team will not share any information collected with anyone outside the study unless it is necessary to protect participants, or if required by law. All of the information collected will be kept for three years. The information, audio files, and transcripts will be stored on a password-protected computer and/or in locked cabinets that only the research team can access. After three years, all of the collected information will be destroyed by securely shredding documents or permanently deleting electronic information.

As with all research, there is a chance that privacy could be breached. For example, despite the best efforts of the research team to keep the information we collect during the study private, a breach may occur as a result of accidental human error or hacking. In the event a breach occurs, all participants will be contacted and notified as to the extent of the breach, any damages incurred, and future potential risks; contact information for additional inquiries will also be provided.

Results from this study may appear in professional journals or at scientific conferences. However, no individual participants will be identified or linked to the results. Results may also be used in future research or shared with other researchers. However, other researchers will not have access to any identifying information of participants.

**Federal Costs:** \$285,446.07

#### **9. Research Tools/Instruments:**

- Attachment A – Parent/Caregiver Informed Consent for Child Participation
- Attachment B – Program Operator Informed Consent
- Attachment C – Questionnaire for Student Pre-/Post-Intervention Survey
- Attachment D – Lesson Feedback Worksheet for Students
- Attachment E – Lesson Feedback Worksheet for Program Operators
- Attachment F – Discussion Guide for In-Depth Interviews with Program Operators
- Attachment G – Discussion Guide for Focus Groups with Parents/Caregivers
- Attachment H – Demographics for Parents and Program Operators
- Attachment I – Sample Informational Email to Parents/Caregivers
- Attachment J – Sample Recruitment Email for Parent/Caregiver Focus Group
- Attachment K – Lesson Attendance Sheet for Program Operators
- Attachment L – Confirmation Letter for Administrator/Principal

- Attachment M – Stimuli for IDIs – Team Nutrition Cooks! Activity Guides and Videos
- Attachment N – Parent/Caregiver Informed Consent for Focus Group
- Attachment O – Stimuli for Focus Groups – Team Nutrition Cooks! Family Handouts
- Attachment P – Draft Agenda for Kickoff meeting with Program Operators