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The authors have no conflict of interest to declare.

Cover photo credit: FAQR Sierra Leone Four Foods MAM Treatment Study participant and caregiver, 2018

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Acronyms

ACF  Action Against Hunger
ASN  American Society for Nutrition
CRS  Catholic Relief Services
CSB+ Corn-Soy Blend Plus
CSWB Corn-Soy-Whey Blend
EED  Environmental Enteric Dysfunction
ENN  Emergency Nutrition Network
FACET Food Assistance Cost-Effectiveness Tool
FAQR Food Aid Quality Review
FFP  Office of Food for Peace (USAID)
FVO  Fortified Vegetable Oil
HEB  High-Energy Biscuit
ICRC International Committee of the Red Cross
INFORMS Institute for Operations Research and the Management Sciences
KSU  Kansas State University
LNS-SQ Lipid-Based Nutrient Supplement-Small Quantity
MAM  Moderate Acute Malnutrition
MOU  Memorandum of Understanding
MSF  Médecins Sans Frontières
MUAC  Mid-Upper Arm Circumference
NGO  Non-Governmental Organization
NIH  National Institutes of Health
PI  Principal Investigator
PLW  Pregnant and Lactating Women
POD  Personnel Operations Division
REFINE Research Engagement on Food Interventions for Nutritional Effectiveness
RUF  Ready-to-Use food
RUSF Ready-to-Use Supplementary Food
SAM  Severe Acute Malnutrition
SC+  Super Cereal Plus
SNF  Specialized Nutritious Food
SNFP Specialized Nutritious Food Product
UNICEF United Nations Children’s Fund
USAID United States Agency for International Development
USDA United States Department of Agriculture
WFP  World Food Programme
WHO  World Health Organization
WHZ  Weight-for-Health Z-score
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Executive Summary

The Food Aid Quality Review (FAQR) project provides actionable recommendations to USAID and its partners on ways to improve nutrition among vulnerable populations for whom the direct distribution of food aid can make a significant impact. During Option Year 1, FAQR continued to build on Phase III accomplishments: i) analyzing data collected as part of the Sierra Leone Four Foods MAM Treatment Study and associated sub-studies and reporting on key findings; ii) developing models and scenarios for improving the United States Agency for International Development Office of Food for Peace (USAID/FFP) supply chain; iii) developing a tool for helping practitioners evaluate the cost-effectiveness of nutrition interventions; iv) analyzing the USAID/FFP website and making recommendations for improving the structure and content; v) continuing to add and update resources related to food assistance for nutrition to the Research Engagement on Food Interventions for Nutritional Effectiveness (REFINE) website; vi) sharing knowledge related to food assistance and nutrition, including materials generated by the FAQR team; and vii) facilitating the collaboration of domestic and international agencies engaged in food assistance programming and technology.

This FAQR Phase III Annual Report highlights Option Year 1 (February 1, 2019-January 31, 2020) activities and accomplishments. These include the following:

C.3.1 Research and Development—Improving Existing Products

Sierra Leone: Effectiveness and Cost-Effectiveness Study on Treatment of MAM Study (C.3.1.13, C.3.1.14) and Sub-Studies on Body Composition, Neurocognitive Developmental Indicators, and Environmental Enteric Dysfunction (C.3.1.15)

Data collection for the Sierra Leone Four Foods MAM Treatment Study and associated sub-studies relating to body composition, neurocognitive developmental indicators, and environmental enteric dysfunction was completed during Project Year 3 of FAQR Phase III. The field study data were analyzed during Option Year 1, and reports and manuscripts related to the main findings of these analyses were drafted. In addition, two dissemination events were held in Freetown, Sierra Leone and Washington, DC to share the findings of the main study and the three sub-studies with key local and international partners and stakeholders.

C.3.2 Improved Programming

Food Assistance Resources Webpages (C.3.2.1)

Building on previous FAQR recommendations related to improving USAID/FFP web presence, the team spent Option Year 1 conducting an analysis of the current structure and content of FFP’s Food Assistance Resources webpages and surveying FFP website users to determine how the website is currently used and to identify areas for improvement and barriers to use. A report provides additional recommendations for curating webpages regularly, providing resources and organizing webpages based on user needs, and increasing outward-facing communications.
REFINE Website and Research Protocol Guidance Document (C.3.2.6)

The Research Engagement on Food Interventions for Nutritional Effectiveness (REFINE) website was updated with an additional 79 published studies, 46 ongoing trials, and 16 other resources. The FAQR team conducted a survey of REFINE users to gather information about how they are currently using the website and how it can be improved to serve their needs better. And a report and two manuscripts related to field study design and analysis, research methods used to study food aid for nutrition, and the current landscape of food aid for nutrition research were revised.

Cost-Effectiveness (C.3.2.7)

The FAQR team developed a user manual with background information and step-by-step instructions for how to use FACET. Both the interface and the user manual were reviewed by USAID partners and stakeholders from external organizations over the course of the year, and their feedback was incorporated into subsequent versions of these products. In addition, reports and manuscripts related to the cost-effectiveness and costing methodology of FAQR field studies were drafted and submitted for publication to journals.

Knowledge Sharing (C.3.2.8)

FAQR shared new reports, events, and other project activities with stakeholders during Option Year 1, including FAQR-related articles published in the Food and Nutrition Bulletin, presentations of field study findings from Burkina Faso and Sierra Leone, surveys of REFINE and FFP website users, and an FAQR webinar related to improving food aid products, processes, and programs.

C.3.3 Improved Processes for Commodity Procurement and Quality Assurance

Interagency Harmonization (C.3.3.1, C.3.3.3, C.3.3.4)

Members of the U.S. Domestic Interagency Technical Working Group on Food Assistance Quality met once during Option Year 1 and engaged in multiple conference calls and sub-working group meetings to enhance collaboration between USAID and the U.S. Department of Agriculture (USDA). The International Inter-Agency Working Group for Specialized Nutritious Food Products also met in Geneva, Switzerland, during Option Year 1 and continued to hold quarterly conference calls to discuss harmonizing specifications related to ready-to-use foods and shared challenges related to food safety/quality assurance.

Supply Chain Optimization (C.3.1.9, C.3.3.5)

The FAQR team developed case studies to analyze factors affecting cost-effectiveness throughout the supply chain of commodities including a port study based in Ethiopia and built a new mathematical optimization model for selecting global warehouse locations; FAQR prepared and analyzed an initial scenario for this model during Option Year 1. The supply chain optimization team presented two of these case study scenarios at the 2019 Institute for Operations Research and Management Science (INFORMS) Annual Meeting and was awarded the second prize in the Doing Good with Good Operations Research Student Paper Competition.
During Option Year 1...

- We attended 9 formal meetings and events
- We delivered 12 presentations on FAQR activities
- We reached an audience of 3,823 people
- We prepared 1 dataset
- We published 3 articles
- We prepared 14 reports
- We presented 5 scientific poster abstracts

FAQR PHASE III
FOOD AID QUALITY REVIEW
Option Year 1 (Feb 2019 - Jan 2020)

ACTIVITIES & OUTPUTS: MAJOR ACCOMPLISHMENTS

Knowledge Sharing
- Events, documents, and other information about FAQR and related activities shared

Food Assistance Resources Webpages
- Website structure analyzed and user survey deployed
- Comprehensive recommendations report drafted

REFINE Website
- Regularly updated with recent published studies, ongoing trials, and other resources
- User survey deployed

Food Assistance Cost-Effectiveness Tool
- Interface updated
- User manual drafted

Sierra Leone Four Foods MAM Treatment Study
- Data analysis completed and reports and manuscripts drafted

Interagency Harmonization
- Domestic interagency working group continued collaborating through meeting and sub-group on specifications
- International interagency working group met in Geneva and held quarterly conference calls

Supply Chain Optimization
- Supply chain cost-effectiveness case studies developed
- Model for selecting global warehouse locations built

OPTION YEAR 2 PLANS

Data Mining Activity
Food Assistance for Nutrition Evidence Summit II

visit us at www.foodaidquality.org
Background: FAQR PHASE III

The Food Aid Quality Review (FAQR) provides the United States Agency for International Development’s (USAID) Office of Food for Peace (FFP) and its partners with actionable recommendations on ways to improve nutrition among vulnerable peoples for whom the direct distribution of food aid can make a significant impact. The Food Aid Quality Review Project Phase III ran from February 1, 2016 to January 31, 2019, with two option years (February 1, 2019 to January 31, 2021).

The first phases of FAQR involved reviews of nutrition science related to specialized nutritious foods. Phase I recommendations were published in Delivering Improved Nutrition: Recommendations for Changes to U.S. Food Aid Products and Programs. This report led to Phase II’s focus on reformulating fortified blended foods (FBFs) as well as inclusion of lipid-based products in FFP’s commodity list and the testing of new products under field conditions. A summary of FAQR Phase II accomplishments is highlighted in the Food Aid Quality Review Phase II Closeout Report.

FAQR Phase III responded to additional FFP priorities. The team continued to work closely with domestic and international collaborators: USAID, USDA and United Nations (UN) partners, all of whom are committed to strengthening the evidence base for use of specialized nutritious food products for nutrition. The framework shaping FAQR activities was based on three priorities: C.3.1 Research and Development—Improving Existing Products; C.3.2 Improved Programming; and C.3.3 Improved Process for Commodity Procurement and Quality Assurance along the Supply Chain. This delineation and numbering scheme correspond with the Statement of Work outlined in Section C: Statement of Work: Conclusion of the Food Aid Quality Review (FAQR): Final Phase of Implementation of the Food Aid Quality Review Phase III Program Contract, AID-OAA-C-16-00020.

C.3.1 Research and Development—Improving Existing Products

FAQR Phase III addressed a range of critical issues, such as: how food matrices (“the nutrient and non-nutrient components of foods and their molecular relationship to each other”\(^1\)) affect bioavailability of nutrients and digestibility of products; the potential for thermal/non-thermal processing technologies to improve food matrices; potential uses for existing products rarely used today, as well as possible new products; and novel packaging technologies to improve resistance to infestation, shelf life, and efficiency of handling; dual-use products for emergency response; and completion of the data collection, analysis and reporting on field studies assessing the effectiveness and cost-effectiveness of various newly-formulated food products.

C.3.2 Improved Programming

The work on improving cost-effectiveness of various intervention designs includes strategy development for pre-positioned specialized nutritional products, guidance on options for deployment of specialized products, elaboration of a strategy for responding to food needs in the initial stages of a sudden onset emergency, and the dissemination of a decision support tool to

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\(^1\) Source: United States Department of Agriculture: National Agricultural Library (https://agclass.nal.usda.gov)
help include cost-effectiveness in the decision-making process regarding specialized food aid programming. The project generates technical guidance, shared details on research protocols for testing new products in the field and harmonized product specifications across donor agencies.

**C.3.3 Improved Process for Commodity Procurement and Quality Assurance along Supply Chain**

The goal is to provide recommendations on institutional and industry processes for capacity building, including the institutionalization and strengthening of interagency technical collaborations, mechanisms to ensure greater policy and product harmonization (domestically and internationally), enhanced supply chain oversight, establishing stronger and more user-friendly quality assurance feedback loops, and promoting food safety and quality standards that can also be applied to local and regional food procurement.
**FAQR III Option Year 1 Activities, Accomplishments, Recommendations and Next Steps**

**C.3.1 Research and Development—Improving Existing Products**

**Sierra Leone: Effectiveness and Cost-Effectiveness Study on Treatment of MAM Field Study (C.3.1.13, C.3.1.14)**

The FAQR research in Sierra Leone sought to determine the relative cost-effectiveness of alternative supplementary foods in the treatment of moderate acute malnutrition (MAM) in normal program settings for children 6 to 59 months old. Study participants received one of four approximately isoenergetic test foods: Super Cereal Plus (SC+) with amylase, Corn-Soy Blend Plus (CSB+) and Fortified Vegetable Oil (FVO), Corn-Soy-Whey Blend (CSWB) and FVO, or Ready-to-Use Supplementary Food (RUSF). The goal of this study is to help guide decisions about what commodities to use in supplementary feeding programs and what factors should be addressed to ensure maximum effectiveness in the treatment of MAM in particular contexts.

**Overview of Option Year 1 Activities**

Data analysis of the Sierra Leone Four Foods Study began in January 2019 and proceeded through July. Dissemination of the study’s key findings began in August with a large dissemination event open to local stakeholders held in Freetown, Sierra Leone. Approximately 100 local stakeholders were invited to attend this event, including community leaders from Pujehun District, where the study was conducted; staff members from the Ministry of Health and Sanitation, the Sierra Leone Standards Bureau, and Statistics Sierra Leone; partners from Washington University, Caritas Bo, and Project Peanut Butter; and local representatives from UN agencies, international NGOs, and USAID. A second dissemination was held for approximately 25 USAID partners and international-level stakeholders in Washington, DC. Feedback from these dissemination events was incorporated into the draft reports for the main study and the three sub-studies to be finalized during Option Year 2.

**Option Year 1 Accomplishments**

- Completed analysis of the main findings of the Sierra Leone Treatment Study.
- Disseminated key study findings to relevant stakeholders.
- Drafted a report of the main study findings and solicited feedback from study partners.

**Option Year 2 Plans**

- Finalize the reports and submit to USAID for approval.
- Draft academic manuscripts and submit to journals for publication.
- Continue to disseminate research findings to USAID/FFP and other partners and stakeholders.
- Begin secondary analysis on sub-research questions as part of Option Year 2 data mining activity.
Sub-studies on Body Composition, Neurocognitive Developmental Indicators and Environmental Enteric Dysfunction (C.3.1.15)

Three sub-studies were conducted as part of the Sierra Leone Treatment Study with the following objectives: 1) to compare the effect of four foods on body composition (lean mass and fat mass accretion) and the correlation of changes in body composition with traditional anthropometric measures of recovery (MUAC and WHZ); 2) to compare the effect of these foods in the presence of environmental enteric dysfunction (EED) in children recovering from MAM; and 3) to compare the effects of the four supplementary foods on children’s neurocognitive function in children suffering from MAM compared to well-nourished peers.

Overview of Option Year 1 Activities

During Option Year 1, the FAQR team conducted analyses of the data collected as part of the three Sierra Leone sub-studies. Key findings of the three sub-studies were also disseminated to local and international stakeholders during two events held in Freetown and Washington, DC, as described above.

Option Year 1 Accomplishments

- **Body Composition**: Completed analyses (both lab-based and statistical); drafted a report of key sub-study findings, which is currently under review and will be finalized in early 2020.
- **EED**: Completed analyses (both lab-based and statistical); drafted a report of key sub-study findings, which is currently under review and will be finalized in early 2020.
- **Neurocognitive Function**: Completed analyses; drafted a report of key sub-study findings, which is currently under review and will be finalized in early 2020.

Option Year 2 Plans

- **Body Composition**: Complete report and submit to USAID for approval; complete academic manuscript for submission to a journal.
- **EED**: Complete report and submit to USAID for approval; complete academic manuscript for submission to a journal.
- **Neurocognitive Function**: Complete report and submit to USAID for approval; complete academic manuscript for submission to a journal.
- Continue to disseminate research findings to USAID/FFP and other partners and stakeholders.

C.3.2 Improved Programming

**Food Assistance Resources Webpages (C.3.2.1)**

The FAQR team built on suggestions offered for improving USAID/FFP’s web presence over the course of the project by conducting a rigorous analysis of the current structure and content of
the USAID/FFP Food Assistance Resources webpages and surveying current users for feedback to generate a comprehensive report and recommendations for improving the webpages.

**Overview of Option Year 1 Activities**

During Option Year 1, the FAQR team continued to support USAID/FFP’s efforts to improve the Food Assistance Resources webpages to highlight and provide information on U.S. food aid products and the available tools and resources for selection and programming. Methods included: 1) conducting a thorough analysis of the current structure and content of the webpages; 2) reviewing previous recommendations related to the FFP website in FAQR reports over the course of Phase III of the project; and 3) surveying FFP website users to determine how the website is currently used and to identify areas for improvement and barriers to use. The findings were compiled into a comprehensive report: *Bringing the USAID/FFP Food Assistance Resources Webpages Up to Industry Standards.*

The key recommendations of the report are organized around six main themes: 1) implement a process for information updates and link checks; 2) improve technical guidance and analysis; 3) improve communications; 4) promote education on the procurement process and product innovation opportunities and add a section with information and tools on food safety and quality assurance in the food assistance supply chain; 5) increase opportunities for institutional and historical learning; and 6) improve the organization of the Food Assistance Resources webpages as USAID/FFP and the Bureau for Humanitarian Assistance consolidate their web presence to support the new bureau’s mission going forward.

The *Bringing the USAID/FFP Food Assistance Resources Webpages Up to Industry Standards* report is supplemented by a *USAID/FFP Website Content Map and Resource Database*, which catalogs all of the resources currently available on the Food Assistance Resources webpages.

**Option Year 1 Accomplishments**

- Development, deployment, and analysis of a survey of FFP website users to improve understanding of how often users visit the website, how they are accessing FFP resources, which of those resources they use most often, what are currently barriers to use, and what areas they suggest for improvement.
- In-depth analysis of the current FFP Food Assistance Resources webpages and the recommendations provided in previous FAQR reports related to the FFP website.
- A comprehensive report based on the findings of the survey and website analysis, *Bringing the USAID/FFP Food Assistance Resources Webpages Up to Industry Standards*, with actionable recommendations for improving the structure, content, and curation of the webpages. The report is accompanied by the *USAID/FFP Website Content Map and Resource Database*, an excel spreadsheet with all the available and recommended resources mapped out with their present location on the website.
Recommendations

- Implement the recommendations made by the FAQR team in the *Bringing the USAID/FFP Food Assistance Resources Webpages Up to Industry Standards* report to improve organization of the webpages based on user needs, curate resources and pages, develop a system to update information regularly, and increase outward-facing communications to alert stakeholders when new and updated food assistance resources and tools are available.

**REFINE Website and Research Protocol Guidance Document (C.3.2.6)**

The Research Engagement on Food Interventions for Nutritional Effectiveness (REFINE) website serves as a knowledge-sharing mechanism for ongoing and published research related to food aid for nutrition. The FAQR team continues to add links to relevant materials for the use of researchers and practitioners and regularly communicates those updates to website users and relevant nutrition groups.

**Overview of Option Year 1 Activities**

During Option Year 1, the FAQR team continued to expand the REFINE database with additional resources for users, including an additional 79 published studies, 46 ongoing trials, and 16 other library documents. The REFINE website attracted 2,102 users during Option Year 1, of which 2,095 were new users. Site users conducted 2,520 sessions (interactions) with the site. The REFINE Twitter account maintained 324 followers. Tweets earned over 6,323 tweet impressions, and 265 users visited the REFINE twitter profile over the course of the year.

In order to understand how users are currently engaging with the REFINE website and to determine what changes might enhance its effectiveness for users, the FAQR team developed a user survey and distributed it to individuals who had previously signed up to receive informational updates related to FAQR and/or REFINE. Responses were received from 17 representatives from USAID, non-profit organizations, academic institutions, and the private sector. Respondents expressed an interest in making REFINE more practitioner-friendly by including resources for program implementers. The FAQR team is currently considering ways to address this request and is also planning an update to the filters used on the website to make them more user-friendly and complementary with the Food Assistance Cost-Effectiveness Tool (FACET).

REFINE collaborators generated reviews of research methods used to study food aid for nutrition and the current landscape of food aid for nutrition research, which have been accepted for publication in the Emergency Nutrition Network (ENN) Field Exchange. The “Food Aid Quality Review: Decision-Making and Lessons Learned in Field Study Design, Implementation and Analysis” report was revised for submission to USAID in Option Year 2.
Option Year 1 Accomplishments

- Built on the existing REFINE database of ongoing trials and published studies to include 79 additional published studies and 46 additional ongoing trials representing 34 countries, as well as 16 other relevant documents, including lessons learned reports, systematic reviews, and supporting literature.
- Effectively tracked ongoing studies in order to keep the REFINE database updated.
- Created and disseminated a user survey to individuals who had previously signed up to receive informational updates related to FAQR and/or REFINE.

Option Year 2 Plans and Future Research Priorities

- Continue to conduct quarterly reviews of ongoing trials, published studies, and other relevant articles and documents related to food aid for nutrition research.
- Update the REFINE website to include these materials on a monthly basis.
- Distribute a list of all of these resources and links to them to FAQR partners and other relevant mailing lists.
- Update and expand the “Links” section of the website to include additional relevant “Resource Links” for practitioners and other website users.
- Update search filters on the website to make them more user-friendly and to complement the filters already used in the Food Assistance Cost-Effectiveness Tool (FACET).
- Continue to share the REFINE website with potential users and to present the resource at relevant events.
- Work with USAID/FFP to develop a sustainability plan for the REFINE website.
- Submit the final version of the “Food Aid Quality Review: Decision-Making and Lessons Learned in Field Study Design, Implementation and Analysis” report (formerly titled the Research Protocol Guidance Document) to share decision-making rationale and lessons learned in study design, implementation, and analysis of research in food aid for nutrition.

Cost-Effectiveness (C.3.2.7)

The cost-effectiveness workstream addresses the policy gap in incorporating cost-effectiveness evidence into decision-making.

Overview of Option Year 1 Activities

During Option Year 1, the FAQR team worked on finalizing the interface and accompanying user manual for the Food Assistance Cost-Effectiveness Tool (FACET) for specialized nutritious foods (SNFs). FACET is a computer-based interactive tool developed to support funders and implementers of SNFs-based nutrition programs to incorporate cost-effectiveness into evidence-informed decisions related to product procurement and program design. The three nutrition programs are: 1) treatment of moderate acute malnutrition (MAM); 2) treatment of severe acute malnutrition (SAM); and 3) prevention of child stunting, wasting, and underweight.
Cost-effectiveness research findings and lessons learned around costing methods related to the FAQR field studies in Burkina Faso and Sierra Leone were also reported during Option Year 1 to generate cost-effectiveness field evidence and to guide future research. This work has been highlighted in field study reports and manuscripts.

**Option Year 1 Accomplishments**

- Subtabs on treatment of SAM and prevention of undernutrition in FACET were updated with systematic review references or evidence data tables from published literature that reported relevant impact indicators for eligible group(s).
- A user manual was developed to facilitate the use of the FACET interface. The manual includes background information on the activity, an overview of the tool, guidance related to what information users will need to collect and input to use the tool effectively, step-by-step tutorials, hypothetical examples, definitions and formulas, and other information to guide FACET users.
- The FACET user manual and the interface underwent multiple rounds of review by the FAQR team, the USAID/FFP nutrition team, and technical experts from external institutions and organizations, including Action Against Hunger (ACF), Catholic Relief Services (CRS), Doctors without Borders (MSF), Food for the Hungry the World Food Programme (WFP), and World Vision. Their feedback was incorporated when feasible.
- Preliminary work on video tutorials to guide FACET users was completed.
- Multiple reports and manuscripts related to FAQR cost-effectiveness field study findings and costing methodology were drafted and are under review.

**Option Year 2 Plans and Future Research Priorities**

- After identifying and confirming priorities with USAID/FFP, the FAQR team will add features/functionality and update existing sections in the FACET interface, user manual, and video tutorials.
- The FAQR team will work with USAID/FFP to help ensure institutional hand-over and long-term sustainability of FACET. This will include finalizing the IT/web server logistics to host the tool interface, hosting training/workshops and dissemination events with USAID/FFP and partner organizations to build awareness and capacity and identifying useful tool upgrades for future iterations.

**Knowledge Sharing (C.3.2.8)**

The FAQR knowledge sharing team communicates research findings, programming recommendations, and project activities to FAQR partners and other food assistance and nutrition stakeholders.
Overview of Option Year 1 Activities

The FAQR team disseminated information about new reports, events, and other project activities to stakeholders during Option Year 1, as well as final deliverables submitted to USAID at the conclusion of Project Year 3, including:

- Two articles published in the *Food and Nutrition Bulletin*. Key discussion points from and links to these articles, “*Food Aid for Nutrition*: Narrative Review of Major Research Topics Presented at a Scientific Symposium Held October 21, 2017, at the 21st International Congress of Nutrition in Buenos Aires, Argentina,” which was published at the end of January 2019, and “*Advancing Nutrition in the International Food Assistance Agenda*: Progress and Future Directions Identified at the 2018 Food Assistance for Nutrition Evidence Summit,” which was published in September 2019, were sent out via Twitter.
- Two disseminations of Sierra Leone field study findings held in Freetown and Washington, DC, for which a webinar was also produced. The FAQR website and Twitter feed were used to publicize these events.
- A webinar presentation made by the FAQR team in March 2020 related to improving food aid products, processes and programs. A link to a recording of this webinar was sent out via Twitter and provided on the front page of the FAQR website.
- A presentation of Burkina Faso field study findings and exhibition of five posters related to the Sierra Leone field study at the American Society for Nutrition (ASN) 2019 conference. The FAQR team posted photos and updates from the event, as well as a short video of the Burkina Faso presentation. A full list of the posters and presentations made at ASN 2019 can be found in *Annex 2*.
- The 2nd place award of the Supply Chain Optimization team in the *Doing Good with Good Operations Research* Student Paper Competition at the 2019 Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting. The FAQR team shared and celebrated this award with our partners on Twitter.
- A survey of users of USAID/FFP Food Assistance Resources webpages to help understand how visitors are currently using the website, barriers to use, and areas for improvement. The FAQR team developed the survey, distributed it through the FAQR website and Twitter account, as well as other food aid stakeholder mailing lists, and conducted an analysis of the survey responses. This information was key to FAQR recommendations on *Bringing the USAID/FFP Food Assistance Resources Webpages Up to Industry Standards*.
- Final Phase III deliverables, including the final report on the Burkina Faso field study. Key findings of and links to these reports were shared on Twitter.

A full list of the meetings in which FAQR participated, presentations made, posters presented, articles published, and reports, documents, and datasets submitted to USAID by FAQR team members can be found in *Annex 2* of this report.
Option Year 1 Accomplishments

- Maintained and added resources to the FAQR website. Between February 1, 2019, and January 31, 2020, https://foodaidquality.org was visited 3,181 times by 2,425 users, who visited an average of 3.2 pages per visit.
- Maintained the FAQR Twitter feed. Between February 1, 2019, and January 31, 2020, a total of 89 tweets were sent from @foodaidquality, which resulted in 78,645 Twitter impressions and were retweeted 65 times and liked 157 times. Links from these tweets were clicked 163 times over that period.

Option Year 2 Plans and Recommendations

- Continue to publicize FAQR events, update and add resources to the FAQR website, and maintain the FAQR Twitter account as a source of information about project activities.
- Plan and conduct a second Food Assistance for Nutrition Evidence Summit to continue to synthesize recent research related to food assistance for nutrition, facilitate dialogue on key policy and program-relevant findings related to this research, and identify priority areas for investment and collaboration between key stakeholders.
- Implement a communication strategy related to the 2020 Evidence Summit, including: sharing information about the agenda and registration on the FAQR and REFINE websites, the FAQR and REFINE Twitter feeds, FAQR and REFINE mailing lists, and through partner organizations; creating an event webpage on the FAQR website; and designing promotional materials to be used in preparation for and during the event.

C.3.3 Improved Process for Commodity Procurement and Quality Assurance along Supply Chain

Interagency Harmonization (C.3.3.1, C.3.3.3, C.3.3.4)

The FAQR team facilitates consultation and coordination between U.S. government agencies, and across U.S. and international organizations.

Overview of Option Year 1 Activities

During Option Year 1, the domestic and international interagency working groups continued to meet to share agency priorities and challenges and to collaborate to achieve common goals related to food assistance products and programming.

The U.S. Domestic Interagency Technical Working Group on Food Assistance Quality, which is comprised of representatives from several offices and bureaus in USAID and USDA, as well as NIH, participated in multiple conference calls and meetings, including sub-working group meetings, over the course of the project year to reengage the core members of the group. The full working group met on October 29, 2019, following reorganization of USDA and USAID offices engaged in diverse aspects of food assistance products, programs, and processes. This meeting helped to reinforce ongoing informal collaborations between working group members.
Colleagues from USAID and USDA came together to discuss both agencies’ roles in the food aid commodity specification process, new developments to improve packaging, food safety and quality assurance measures, and FAQR research. The meeting culminated with a commitment to continue collaboration and discussion of next steps for the group, including possible frameworks for sustaining the group and mechanisms for continuing interagency collaboration after the conclusion of the FAQR project. Participants in this meeting included 35 USAID and USDA staff members and FAQR team members.

The International Inter-Agency Working Group for Specialized Nutritious Food Products, which is currently comprised of representatives from USAID, UNICEF, WFP, MSF, ACF, and ICRC, held quarterly conference calls over the course of the project year and one meeting that took place June 19-20, 2019, and was hosted by ICRC in Geneva. A side meeting of the Food Safety and Quality Assurance subgroup on traceability and incident reporting was also held on June 18. The key topics discussed during the June meeting included: accomplishments since the September 2018 meeting; updates on harmonized ready-to-use food (RUF) specifications; new product development, including product design to support programming and harmonization of processes to approve new products; updates on recent World Health Organization (WHO) activities relevant to specialized nutritious food products (SNFPs); programming considerations for SNFPs and related research; and food safety and quality, including traceability and incident reporting, joint inspection, process capabilities, and auditing.

**Option Year 1 Accomplishments**

- Key accomplishments of the Domestic Interagency Technical Working Group on Food Assistance Quality include:
  - Establishment of a joint USAID-USDA specifications sub-working group with a commitment to meet monthly and establish 2020 priorities, including developing a schedule for updating selected product specifications. The first meeting of this sub-group took place in December 2019.
  - Proposal of a joint framework for new product introduction and innovation to be further discussed and refined.
  - Initial formation of priority activities to establish evidence on hybrid packaging.
  - Agreement to review an earlier interagency framework and options for continued collaboration over the next six months in preparation for the next meeting.
  - Agreement to hold the next meeting and begin planning around the Food Aid Packaging Solutions Workshop on March 3-5, 2020, at Michigan State University.
  - Continued work within the planning group to establish the agenda and timing of the next interagency meeting in 2020.

- Key accomplishments of the International Inter-Agency Working Group for Specialized Nutritious Food Products include:
  - Establishment of a subgroup on Food Safety and Quality Assurance to share quality complaints and process capability indicators, including confidential information.
Agreements reached for ongoing collaboration on the specifications for High-Energy Biscuit (HEB) 2.0 and lipid-based nutrient supplements-small quantity (LNS-SQ) and to ongoing work to improve packaging. Specific areas of interest include labeling, performance, and environmental sustainability related to packaging.

Development of a harmonized table of use recommendations for SNFPs, including guidance on products for children and pregnant and lactating women (PLWs).

Closer collaboration with WHO, including confirmation that WHO does not need to approve new formulations for RUTFs that meet the current WHO guidance as long as the nutrient targets for RUTF and the requirement of 50% protein source from dairy are met. Agreement with WHO to make clear that the proposed nutrient composition in the Joint Statement on Community-based Management of Severe Acute Malnutrition is to be used to target nutrient intakes from specific foods for specific populations, rather than limits for manufacturing specifications.

Agreements by agencies to explore opportunities to capture more information relevant to product performance in existing operational research and to continue to develop traceability and incident reporting feedback loops with a focus on generating data that can be aggregated to understand trends.

Determination of process capability to be introduced to manufacturers that will be required to be integrated into the harmonized auditing frame.

**Option Year 2 Plans and Future Priorities**

- Plans for the Domestic Interagency Technical Working Group on Food Assistance Quality during Option Year 2 include:
  - Two additional working group meetings to be held in Washington, DC, to build on existing collaboration.
  - Continuing coordination of the specifications sub-working group.
  - Finalization and dissemination of a sustainability plan for the working group; institutionalization and ownership of the group is a critical next step for continuing collaboration. This will include:
    - Identifying steering/planning committee members;
    - Developing the road map/institutionalization framework and responsibilities/steps for moving forward; and
    - Linking to other multisectoral all-of-government nutrition, food safety, and food aid working groups, as appropriate.
  - Participation in the 3rd Food Aid Packaging Solutions Workshop to be hosted by Michigan State University.

- Plans for the International Inter-Agency Working Group for Specialized Nutritious Food Products during Option Year 2 include:
  - Continuation of quarterly conference calls among key agency personnel to share work priorities and to coordinate joint efforts related to SNFPs;
- Additional working meeting to be hosted by World Food Programme in May 2020;
- Finalization of secretariat transition plan and manual; and
- Sharing of group’s work with other international partners at appropriate venues, such as the Nutrition for Growth Summit.

**Supply Chain Optimization (C.3.1.9, C.3.3.5)**

The FAQR supply chain optimization workstream seeks to improve the current USAID/FFP supply chain by providing recommendations based on analyses of scenarios related to commodity procurement, prepositioning, and shipment, including the “last mile” of distribution to food assistance beneficiaries.

**Overview of Option Year 1 Activities**

With the insight and experience resulting from FAQR Phase III, the supply chain team focused on two major missions during Option Year 1. The first task was to further develop Ethiopia case studies in order to analyze different factors impacting cost-effectiveness. After exploring a comprehensive single-commodity supply chain in Ethiopia as a case study in Phase III, the team wrote a paper, “Enhancing the Effectiveness and Efficiency of Food Aid Supply Chain: An Economic Optimization Model for USAID Food for Peace Program’s Operations in Ethiopia,” based on the case study findings. All results and progress were shared with USAID. The second focus was building a new mathematical optimization model and preparing a scenario for USAID/FFP’s global warehouse location selection. The team collaborated with FFP to specify the scope. An initial scenario for the global warehouse location selection model was built, an algorithm for solving this model was implemented, and a subsequent analysis was performed. Additionally, the team prepared a port study based on the Ethiopia case study. In the port study, two Eritrean ports (Massawa and Assab) were added as discharge ports to the earlier network designed for Ethiopia.

In addition to generating scenarios and building new models, the supply chain team interacted with USAID/FFP to determine a process for handing over the supply chain optimization tool and prepared a survey of software available to solve mathematical optimization models. Also, the team had internal meetings to decide on best ways to create onset emergency demand scenarios. Working on the process for handing over the supply chain optimization tool and onset emergency demand scenarios will be continued in Option Year 2.

**Option Year 1 Accomplishments**

- Different scenarios for analyzing factors affecting the cost-effectiveness of the Ethiopia food aid supply chain were created and solved with the improved supply chain optimization tool.
- The “Enhancing the Effectiveness and Efficiency of Food Aid Supply Chains: An Economic Optimization Model for USAID Food for Peace Program’s Operations” paper was awarded the second prize in the Doing Good with Good Operations Research Student Paper
Competition at the 2019 Institute for Operations Research and Management Science (INFORMS) Annual Meeting.

- An initial scenario and the first mathematical programming model for warehouse location optimization was created, and the initial results of the global warehouse study were obtained and analyzed. The insights were used to build more complex scenarios and models that take into account uncertainty in food aid procurement and distribution.
- A short summary of the confidential data report of procurement and ocean transportation data from April 2011 to September 2016 was produced to be shared publicly.

**Option Year 2 Plans and Future Research Priorities**

- Continue to generate and solve strategic scenarios involving global warehouse locations, inventory positioning, and the Ethiopia case study.
- The FAQR team will continue to analyze a historical onset emergency response case and use it to build a supply chain scenario for the emergency that can then be adapted to other situations.
- The FAQR team will continue to work with USAID/FFP to determine a process for handing over the supply chain optimization tool.
Annex 1. FAQR Phase III Option Year 1 Acknowledgements

The Food Aid Quality Review Phase III Option Year 1 would like to acknowledge current and former contributing research staff, consultants, and partners:

**Principal Investigators**

- **Patrick Webb, PhD**
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  Friedman Nutrition School
  Tufts University

- **Beatrice Rogers, PhD**
  Co-Principal Investigator (Co-PI)
  Chair of the Division of Food and Nutrition Policy and Programs
  Friedman Nutrition School
  Tufts University

**Research Staff and Consultants (United States and Canada)**

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  Tufts University

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  University of California, Davis

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  Tufts University

- **Quentin Johnson**
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  Quican Inc.

- **Lindsey Ellis Green**
  Project Manager
  Friedman Nutrition School
  Tufts University

- **Christine Van Fossen**
  Project Manager
  Friedman Nutrition School
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- **Devika Suri**
  Consultant: Data Manager
  University of Wisconsin, Madison

- **Ye Shen**
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Elisabeth Learned  
Communications Research Assistant  
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Alexis Babaian  
Communications Research Assistant  
Friedman Nutrition School  
Tufts University
### Research Staff and Consultants (Sierra Leone)

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacy Griswold</td>
<td>Field Research Manager</td>
<td>Friedman Nutrition School, Tufts University</td>
</tr>
<tr>
<td>Akriti Singh</td>
<td>Senior Field Research Assistant</td>
<td>Friedman Nutrition School, Tufts University</td>
</tr>
<tr>
<td>Jukka Leppänen</td>
<td>Consultant, Neurocognitive Sub-Study</td>
<td>University of Tampere, Finland</td>
</tr>
<tr>
<td>Alhaji Alieu Luseni</td>
<td>Field Research Assistant</td>
<td>Friedman Nutrition School, Tufts University</td>
</tr>
</tbody>
</table>

### Subcontracting Partners

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<tr>
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<tbody>
<tr>
<td>Global Food &amp; Nutrition, Inc.</td>
<td>Co-Investigator</td>
<td>Northeastern University</td>
</tr>
<tr>
<td>Nina Schlossman</td>
<td>Marketing and Communications Director</td>
<td>Ozlem Ergun, Co-Investigator, Keziban Tasci, Research Assistant</td>
</tr>
<tr>
<td>Mandy Bridges</td>
<td></td>
<td>WashU</td>
</tr>
<tr>
<td>Washington University in St. Louis (WashU)</td>
<td>Co-Investigator</td>
<td>Mark Manary, Donna Wegner, Elizabeth Cimo, Data Analyst</td>
</tr>
<tr>
<td>Keziban Tasci</td>
<td>Research Assistant</td>
<td>WashU</td>
</tr>
<tr>
<td>Weijia Jing</td>
<td>Research Assistant</td>
<td>WashU</td>
</tr>
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</table>
Annex 2. Summary of FAQR Phase III Option Year 1 Deliverables and Activities

3.1 Meetings/Events (9)

The table below represents select meetings and events attended or hosted by FAQR team members either to present components of the project or to interact with other individuals or teams to exchange key information.

<table>
<thead>
<tr>
<th>Meeting/Event</th>
<th>Purpose</th>
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<tr>
<td>FAQR Year 4 Kick-Off Meeting with USAID/FFP in Washington, D.C. February 19, 2019</td>
<td>The FAQR team met with members of the USAID/FFP Nutrition, Communications and Program Operations Division (POD) teams to discuss the planned activities and final deliverables for FAQR’s Year 4 Activities.</td>
</tr>
<tr>
<td>Training on updating the Product Description Sheets with USAID/FFP in Washington, D.C. March 28, 2019</td>
<td>This training seminar focused on the processes and tools related to the USAID/FFP Food Aid Product Description Sheets developed by Food Aid Quality Review team members and demonstrated how to create and update all the components to ensure that all relevant information is kept updated, harmonized and organized. The audience consisted of USAID/FFP nutrition staff, IT staff and FFP staff. The learning objectives were as follows: describe the purpose for the Food Aid Product Description Sheets; provide an understanding of all key tools, components and infrastructure; demonstrate how to create and update individual Food Aid Product Description Sheets and their components; discuss updating issues and how to troubleshoot; provide an overview of 508 Compliance; and demonstrate how to export ready-to-post documents to USAID.gov.</td>
</tr>
<tr>
<td>International Inter-Agency Working Group Meeting on Process Capabilities April 9-10, 2019</td>
<td>Representatives from the International Inter-Agency Working Group, Food Safety and Quality Assurance subgroup met with suppliers of specialized nutritious food products to discuss the process capabilities approach to food safety quality assurance. The process capabilities approach will allow suppliers of SNFPs to have confidence in their production process. This will, in turn, give Inter-Agency members confidence in the quality of products being produced by suppliers. There is agreement between suppliers and partners (Inter-Agency members) that the process capabilities approach should be adopted and integrated into the auditing process for SNFPs.</td>
</tr>
<tr>
<td>International Inter-Agency Working Group Meeting on Traceability and Incident Reporting June 18, 2019</td>
<td>The International Inter-Agency Working Group subgroup on food safety and quality assurance held a side meeting on Traceability and Incident Reporting on June 18 in Geneva, Switzerland.</td>
</tr>
<tr>
<td>12th International Inter-Agency Working Group Meeting</td>
<td>The International Inter-Agency Working Group held their 12th annual meeting on June 19 and 20 in Geneva,</td>
</tr>
</tbody>
</table>
June 19-20, 2019

Switzerland. The meeting was attended by representatives from all Inter-Agency working group members, USAID, World Food Programme (WFP), United Nations Children’s Fund (UNICEF), Doctors without Borders (MSF), Action Against Hunger (ACF), International Committee of the Red Cross (ICRC), and a representative from the World Health Organization (WHO).

FACET Meeting with WFP to Discuss Potential Synergies of Costing Tools
July 25, 2019

The FAQR Cost Specialist participated in a remote meeting with WFP Nutrition’s Knowledge Management Costing Consultant and WFP programmatic field staff to discuss potential synergies related to costing tools.

Domestic Interagency Technical Working Group Meeting on Food Aid Quality
October 29, 2019

Representatives from USAID and USDA, as well as members of the FAQR team, met at USAID’s offices in Washington, DC, to discuss the food aid commodity specification process, food assistance packaging, food safety and quality assurance, current FAQR research, and next steps for the group.

Option Year 2 Planning Meeting with USAID
October 30, 2019

The FAQR Principal Investigators (PIs) and Project Manager met with members of the USAID/FFP team and other USAID partners in Washington, DC. The PIs provided an overview of current FAQR activities, and the attendees discussed potential plans for Option Year 2, including conducting a second Evidence Summit related to food assistance and nutrition, and mining the FAQR field study datasets to investigate additional research questions.

R Studio Conference and Workshop
January 27-30, 2020

The FAQR Cost Specialist attended the 2020 R Studio Conference in San Francisco and participated in a two-day training workshop in order to build skills that can be used to improve the FACET interface.

3.2 Presentations (12)

The table below represents key presentations delivered by members of the FAQR team.

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<th>Presentations</th>
<th>Purpose</th>
<th>Estimated Number of Attendees</th>
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<tr>
<td>USAID/FFP FAQR Base Period Results Dissemination in Washington, D.C. February 19, 2019</td>
<td>FAQR presented final results, recommendations and policy implications from completed research areas at the USAID FFP Office in Washington, D.C. More than 50 partners from USAID, USDA and other U.S. Government agencies were present for the meeting.</td>
<td>50</td>
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<tr>
<td>Food Assistance Community Webinar March 6, 2019</td>
<td>In conjunction with the TOPS Program, FAQR hosted a webinar to share technical results, recommendations and policy implications with the food assistance community. The technical areas presented were the same as those highlighted in the USAID presentation above. The webinar was attended by more than 60 participants. A full recording of the webinar is available here.</td>
<td>60</td>
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<td>Event</td>
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<tr>
<td><strong>FAQR Sierra Leone Four Foods Study Progress Report</strong> Presentation in Washington, D.C. March 18, 2019</td>
<td>This meeting convened subject-matter experts and key stakeholders from both USAID/FFP and the WFP, providing an opportunity for the FAQR team to present the key findings and stories emerging from the data analysis. This also served as an opportunity for USAID/FFP and WFP to give feedback and guidance on more in-depth analysis or alternate questions for consideration as the team continues data analysis. Some key points that emerged were to consider age as a potential modifier of the treatment effect, with specific consideration given to the period of transition into and out of the complementary feeding period, and an assessment of mid-upper arm circumference (MUAC) as a measure of healthfulness.</td>
<td>14</td>
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<tr>
<td><strong>Next Generation of Specialized Nutritious Food Products for the Management of Acute Malnutrition</strong> April 11, 2019</td>
<td>FAQR participated in a meeting on the next generation of SNFPs organized by USAID/FFP. The meeting was attended by more than 30 representatives from U.S. government agencies, research partners, industry and implementing partners. FAQR gave three presentations: the co-PI provided an overview of ongoing research on innovations in SNFPs pulled from the REFINE database and shared insights from the FAQR team’s research on what the next generation of food aid products might look like in “A Compilation of Ongoing Research on Specialized Nutritious Products to Address Acute Malnutrition”; FAQR’s partner at Kansas State University (KSU) presented recommendations and strategies to improve the nutrient bioavailability of food aid products; and the FAQR Cost Specialist provided an overview of FACET, an interactive tool that has been developed by FAQR to support evidence-based decision-making for more cost-effective nutrition programming of SNF products in “FACET: a tool for the food assistance community to provide a ‘break-even’ scenario analysis for new specialized food formulations.”</td>
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<tr>
<td><strong>FACET Beta Testing</strong> May 15, 2019</td>
<td>Beta testing sessions were held at USAID/FFP offices in Washington, D.C. and provided USAID colleagues with an in-person opportunity to learn about FACET and to provide feedback on the interface and the use cases. A total of 14 USAID attendees joined one of the three beta testing sessions.</td>
<td>14</td>
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<tr>
<td><strong>American Society for Nutrition 2019 Conference</strong> June 8-11, 2019</td>
<td>The FAQR team participated in the ASN Nutrition 2019 conference in Baltimore, Maryland. The Burkina Faso Field Research Director presented on Displacement of Household Foods by Fortified Blended Flours versus Lipid-based Supplements in Complementary Feeding of Children Aged 6-23 Months in Burkina Faso. The FAQR research team also presented five posters: 1) Adherence to Ration Guidance During Preparation or Feeding of Four Specialized Nutritious Foods Does Not Influence Recovery from Moderate Acute Malnutrition (MAM); 2)</td>
<td>3,000</td>
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</table>
Comparative Effectiveness of Four Specialized Nutritious Food Products for Treatment of Moderate Acute Malnutrition in Sierra Leone; 3) Cost and Cost-Effectiveness of Four Specialized Nutritious Foods for Treatment of Moderate Acute Malnutrition in Sierra Leone; 4) Changes in Body Composition Using Deuterium Dilution Technique among Young Children Receiving Specialized Nutritious Foods for Treatment of Moderate Acute Malnutrition in Sierra Leone; and 5) Environmental Enteric Dysfunction as a Potential Modifier of the Effect of Specialized Nutritious Foods in the Treatment of Moderate Acute Malnutrition in Sierra Leone.

FACET Beta Testing Webinar for International Partners July 30, 2019
The FAQR Cost Specialist conducted a webinar to introduce FACET to and to solicit feedback on the interface from various international partners, including ACF, MSF, WFP, and USAID.

FACET Beta Testing Webinar for Implementation Partners August 19, 2019
The FAQR Cost Specialist conducted a webinar to introduce FACET to and to solicit feedback on the interface from FFP’s implementation partners, including CRS, World Vision, and Food for the Hungry. A recording of this webinar was made available to those partners who could not participate directly.

Sierra Leone MAM Treatment Study Dissemination in Freetown, Sierra Leone August 22, 2019
Chaired by the Director of the Directorate of Food and Nutrition within the Sierra Leone Ministry of Health and Sanitation, the dissemination event held in Freetown, Sierra Leone, was well attended by stakeholders from Pujehun District and Freetown. The half-day event was held at the Bintumani Hotel. Key highlights included encouraging country ownership and building local capacity for high-quality research.

Sierra Leone MAM Treatment Study Dissemination in Washington, D.C. August 28, 2019
With opening remarks by FFP’s Brian Bacon, the dissemination event in Washington, DC, was well attended by team members from USAID Food for Peace and other members of the nutrition community both in person and via the WebEx platform. Discussion centered on the role of complementary feeding and evidence of effectiveness of delivery modalities. More detail will be forthcoming in the comprehensive reports.

Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting October 20-23, 2019
The Supply Chain Optimization team presented two papers: “Enhancing Prepositioning Policies for Food Aid Supply Chains: An Economic Optimization Model for USAID Food for Peace Program’s Operations” based on their warehouse location and inventory positioning modeling framework and “Enhancing the Effectiveness and Efficiency of Food Aid Supply Chains: An Economic Optimization Model for USAID Food for Peace Program’s Operations” based on an abbreviated version of their Ethiopia scenario manuscript. The latter paper was
awarded 2nd prize in the Doing Good with Good Operations Research Student Paper Competition.

FACET Interface and User Manual Review with USAID November 1, 2019
The FAQR Cost Specialist and the FAQR co-PI (who joined remotely) organized a meeting in Washington, DC, with USAID/FFP nutrition team members to present an overview of the FACET interface and user manual. Nutrition team members reviewed the draft version of the user manual and tested the tutorial and example sections of the FACET interface. Questions and comments related to the interface and the manual were raised and discussed throughout the meeting.

10

3.3 Reports (14)²

- Joseph, Michael; Griswold, Stacy; Alavi, Sajid; Green, Lindsey; Johnson, Quentin; Walton, Shelley; Webb, Patrick. 2019. Effect of Cooking Methods and Formulation of Fortified Blended Foods on the Food Matrix and Nutrient Bioavailability: An Experiment from The Food Aid Quality Review, Sierra Leone Four Foods Study. Report to USAID. Boston, MA: Tufts University.
- Schlossman, Nina; Bridges, Mandy; Johnson, Quentin. 2018. USAID Food for Peace Food Safety & Quality Assurance Feedback Loop Analysis. Report to USAID. Boston, MA: Tufts University.

² All reports, unless indicated, can be accessed through the USAID Development Experience Clearinghouse (DEC): https://dec.usaid.gov/dec/home/Default.aspx#
3.4 Publications (3)


3.5 Datasets (1)

- Burkina Faso Effectiveness and Cost-Effectiveness Study on Prevention of Wasting and Stunting Field Study Data

3.6 Scientific Poster Abstracts Presented (5)

- Adherence to Ration Guidance During Preparation or Feeding of Four Specialized Nutritious Foods Does Not Influence Recovery from Moderate Acute Malnutrition (MAM) (Poster) (Presented at ASN 2019, June 2019)

- Comparative Effectiveness of Four Specialized Nutritious Food Products for Treatment of Moderate Acute Malnutrition in Sierra Leone (Poster) (Presented at ASN 2019, June 2019)

- Cost and Cost-Effectiveness of Four Specialized Nutritious Foods for Treatment of Moderate Acute Malnutrition in Sierra Leone (Poster) (Presented at ASN 2019, June 2019)

- Changes in Body Composition Using Deuterium Dilution Technique among Young Children Receiving Specialized Nutritious Foods for Treatment of Moderate Acute Malnutrition in Sierra Leone (Poster) (Presented at ASN 2019, June 2019)

### Annex 3. Summary Table of FAQR Phase III Option Year 1 Deliverables

<table>
<thead>
<tr>
<th>Activity Number in Contract SOW</th>
<th>Deliverable</th>
<th>Target Submission Date (based on Oct-Sept Fiscal year)</th>
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<td>Quarterly Progress Reports</td>
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<td></td>
<td>Annual Report Option Year 1</td>
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<td>Option Year 1 Work Plan</td>
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<td>Option Year 2 Work Plan</td>
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<td>C.3.2.1, C.3.3.2</td>
<td>Workstream: Commodity Management System</td>
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<td>Content map of existing FFP Food Assistance Resources webpages</td>
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<td>FFP Food Assistance Resources webpages recommendations report</td>
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<td>Results of scenario building and analysis</td>
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<td></td>
<td>Manuscript based on scenario results</td>
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<td>OY2</td>
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<td></td>
<td>Final supply chain results report</td>
<td>Q1 FY 2021</td>
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<td>C.3.2.7</td>
<td>Workstream: Tools for Cost-effectiveness</td>
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<td>Cost-Effectiveness to Support Specialized Food Aid Decision Making</td>
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<td>Target Submission Date (based on Oct-Sept Fiscal year)</td>
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<td>Work Stream: Field Research</td>
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<td>Treatment of MAM study</td>
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<td>Final dissemination meeting in United States</td>
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<td>Final Report on Sierra Leone Four Foods Treatment Study</td>
<td>FY 2020</td>
<td>OY2</td>
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<td>Final Report on Sub-Study EED</td>
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<td>Final Report on Sub-Study Neurocognitive</td>
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<td>Final Report on Sub-Study Body Composition</td>
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<td>Cleaned Dataset</td>
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<td>Research Protocols</td>
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<td>Domestic meetings</td>
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<td>U.S.-Global Focused (Harmonization)</td>
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<td>Work Stream: Knowledge Sharing</td>
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<td>FAQR Phase III recommendations summary report</td>
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<td>Press releases, policy briefs, and other communication materials</td>
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