Today's Presenters…

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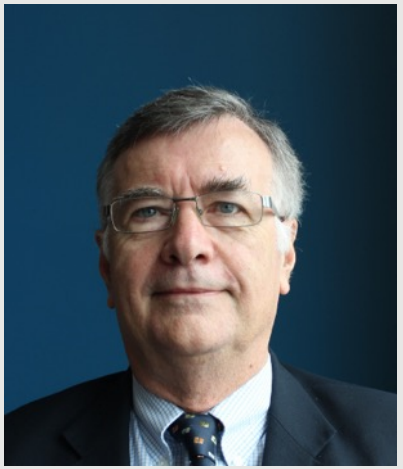
Nina Schlossman

Sajid Alavi



Quentin Johnson

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Food Aid Quality Review Phase III: Results Dissemination

March 6th, 2019

Agenda

I. Introductions

II. Results of 5 FAQR Workstreams (with Q&A)

- Analysis of the USAID/FFP food aid basket and ration technical guidance
- Recommendations to improve nutrient bioavailability of food aid products
- Assessment of food aid packaging challenges and future innovations
- Improvements to food aid quality feedback loops
- Efficiency gains in the last mile of food aid distribution

III. Conclusions and Next Steps

Trends in Food Assistance over 10 Years

Shift toward tailored food assistance: in-kind food aid, cash, vouchers, or local/regional purchase to address nutrition needs

Advocating for cost-effective approaches when making decisions about food assistance for nutrition

Uptake of rigorous evidence-based practice in operations, programming and policy making

Improved food aid basket with 32 products integrating the latest science and technology

Food Aid is Evolving

The GOALS of FAQR Phase III:

EVIDENCE GENERATION

Generating new field-based evidence to support cost-effective use of products for wasting and stunting

Identifying food aid packaging innovations

EFFICIENCY GAINS

Calculating cost effectiveness of food aid products and programming

Optimizing food aid supply chains

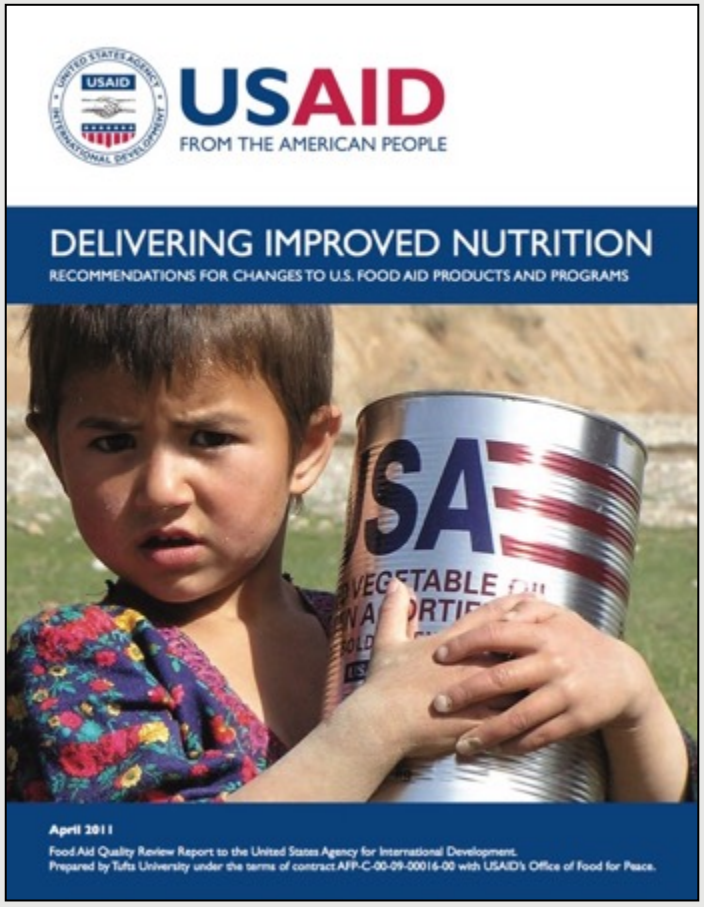
INDUSTRY STANDARDS

Enhancing food safety and quality assurance systems along food aid procurement and shipping claims

Promoting public-private partnerships in food aid

The Food Aid Quality Review (FAQR) Project

- Is food aid 'fit for purpose?'



- Products are only part of the puzzle!

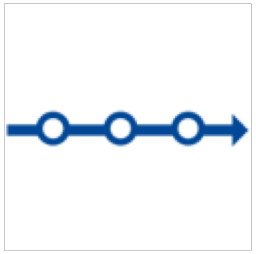
Improvements to the USAID/FFP Food Aid Basket

The FAQR Phase III
Food Basket Work Stream
was tasked with:

recommending ways to improve the selection of food products available for USAID/FFP procurement.

OBJECTIVES

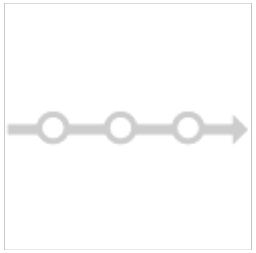
Recommend updates to the food basket



Recommend a process for accepting new products

Provide ration guidance

APPROACH & METHODS



Recommend updates to the food basket

Answer these questions:

1. What's in the Food Basket?
2. What's the nutrient content?
3. How are products used?
4. What changes do partners want?
5. What about new research & standards?
6. Working with industry?

Using these methods:

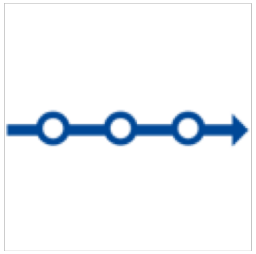
- Reviewing data on commodity/freight pricing, procurement records
- Creating a table of nutrient content based on available information
- Interviews with prime awardees of USAID/FFP programs
- Industry meetings
- Stakeholder discussions
- Literature review

FINDINGS

Recommend updates to the food basket

- **Nutrient content** for PDCAAS Score & content of individual amino acid, omega-3 & omega-6 fatty acids, total carbohydrate, & free sugar **need to be identified and posted**
- **Ensure NutVal includes all USAID/FFP products** & accurate nutrition info
- **Establish a system** that allows for **real time analysis of food aid procurement trends**
- Post **public guidance on new products**
- Consider adding: GMO-free FBF (such as sorghum cowpea blend) and RUF, MNP, SQ-LNS, MQ-LNS
- **Add mycotoxin limits** to all products
- Work with suppliers to **improve FBF shelf-life**
- Use a **high-level platform to discuss the "Next Generation of Food Aid"**
- Organize a **supplier convention**
- Consider establishing **"incubator" grants for suppliers**

APPROACH & METHODS


Recommend a process for accepting new products

Develop a process that will improve the access, availability, and consumption of nutritious, safe, and affordable foods in USAID operations.

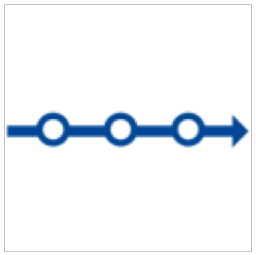
Reviewed:

- WFP New Foods Committee Policy
- UNICEF process
- Trader Joe's

Consulted with:

- USAID/FFP
- USDA
- USAID-USDA Interagency working group
- International Inter-Agency Working Group for SNFPSs
- Scientific reports

FINDINGS



Recommend a process for accepting new products

- **FAQR recommends the following process:**

1. **Prospective vendors submit an online proposal**
2. **Appointed technical experts conduct preliminary review of proposal**
3. **Review committee(s) evaluate product**

- USAID will need to identify **key personnel to complete specific roles and a roster of external experts**
- The process could be **formalized by developing an inter-agency policy**

APPROACH & METHODS

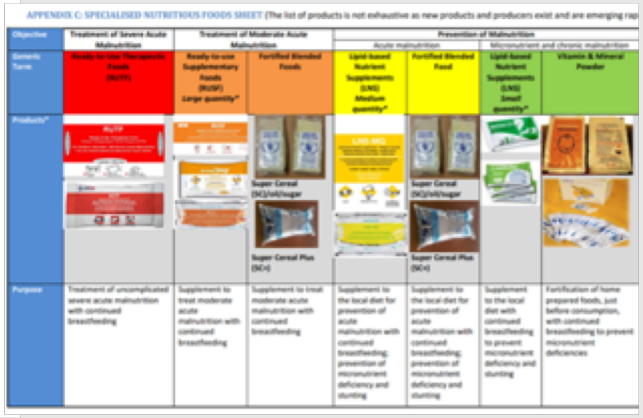
Provide ration guidance

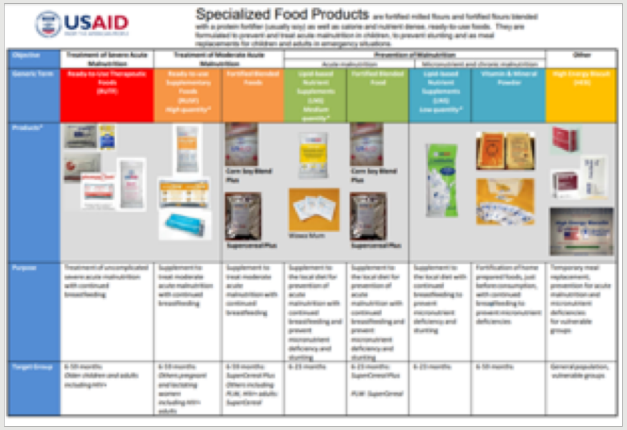
Reviewed 3 prominent sources of ration guidance:

WFP
Specialized Nutritious Foods (SNFs) Fact Sheet

Global Nutrition Cluster
MAM Taskforce
Specialized Nutritious Foods Sheet

USAID/FFP
Specialized Food Products Fact Sheet





FINDINGS

Provide ration guidance

- FAQR developed **a table of existing dosing guidance for SNFs** in which cells indicate:

a) ***Where guidance exists and agrees***
b) ***Where guidance either conflicts or lacks specificity between the sources***
c) ***Where guidance has not been provided***

- **USAID/FFP should convene a working session** to identify a way forward to complete the table
- **Establish formal reporting, monitoring, and evaluation** of the quantity, duration, and delivery frequency of **product rations by program**

PROGRESS

- USAID/FFP has been actively engaged in:
  - Exploring barcoding
  - Exploring possibility for procurement contracts
  - Exploring IT contract
  - Updating specs (e.g. DON requirements for RUTF)
  - Working with suppliers to make product changes
  - Making changes to the product mix → HEB 2.0
  - Building IP knowledge and engagement around the food basket → FACG, Evidence Summit, International Inter-Agency Working Group, past annual meetings with USDA, "portal" website
  - Buy-in for new product approval process
  - Buy-in for updating ration guidance

OVERARCHING KEY RECOMMENDATIONS

1. Implement advanced data systems for tracking and sharing food aid information.
2. Institutionalize a new product approval process.
3. Modify the product mix to meet evolving global standards and program needs.
4. Continue to host meetings and activities around the food basket.

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Recommendations to improve nutrient bioavailability of USAID food aid products

Background

Food Matrix

- The nutrient and non-nutrient components of foods and their molecular relationships, i.e. chemical bonds, to each other (USDA - NAL Glossary, 2015).

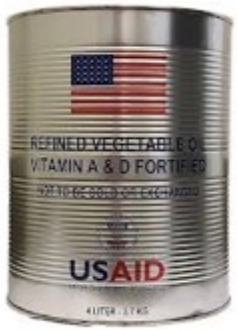
Bioavailability

- Bioavailability is defined as the fraction of total nutrients which is absorbed by the body after its release from the food matrix.

USDA NAL Glossary (2015). Glossary of agricultural terms.
https://agclass.nal.usda.gov/mtwdk.exe?k=glossary&l=60&w=5400&n=1&s=5&t=2

Why food matrices matter

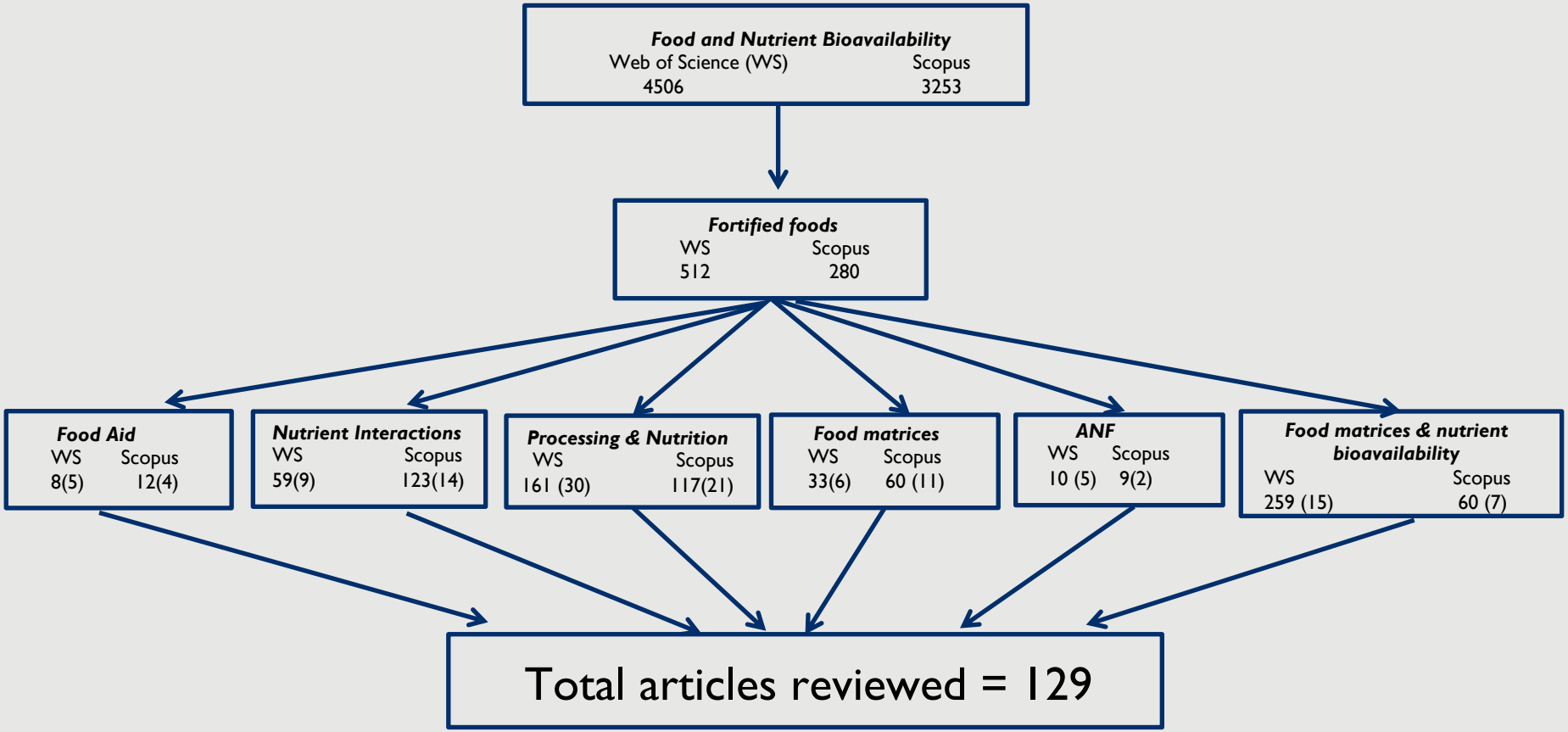
- ➢ Opportunity to integrate advances in food science & technology
- ➢ Better understanding of the 'real outcomes' of consuming food aid products
- ➢ Identify more efficient carriers of energy and nutrition through food aid products
- ➢ Design 'cost-effective' solutions –higher nutritional value at similar costs?



Source: USAID; Tufts University

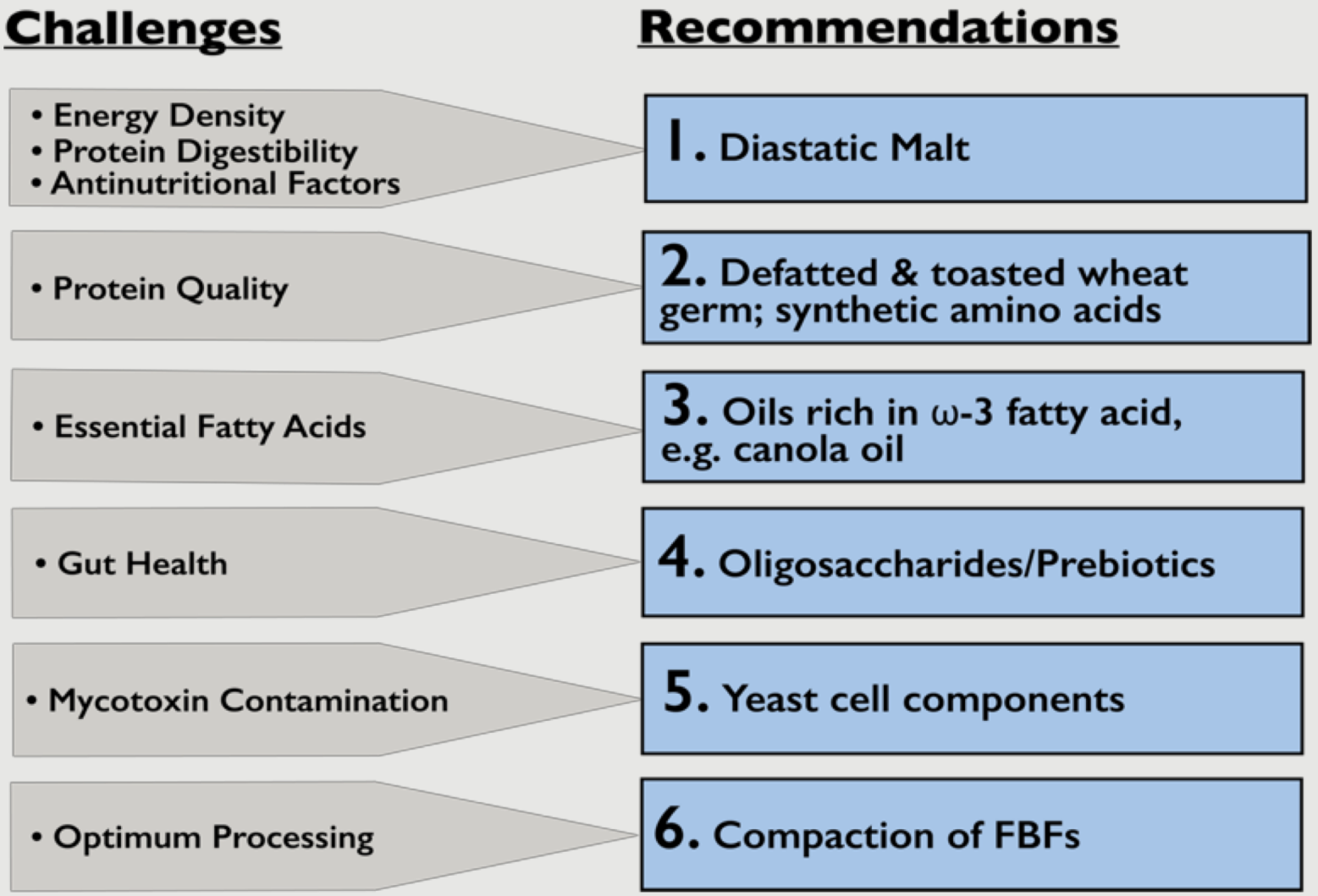
Literature Review Search Strategy (2000-2018)

- Stakeholder consultation & expert meetings
- Lab testing



Bold & Italicized words are the keywords used for literature search. Numbers in parentheses are the actual articles that are relevant to this review; ANF – Anti-nutritional factors

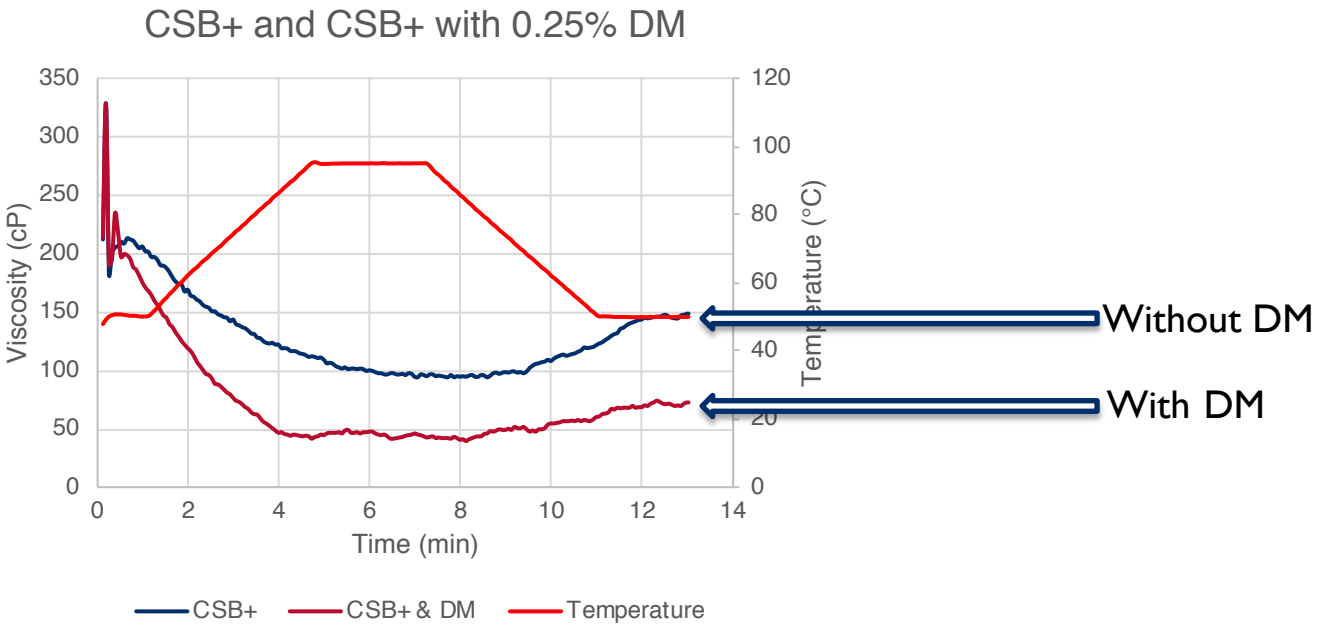
Challenges and Solutions in Improving Bioavailability of Nutrients



Recommendations

Recommendations	Potential Uptake	Potential Uses	Use/Role
Inclusion of Diastatic Malt	Certain	FBFs	• Improve energy density of FBFs • Improve protein digestibility • Reduce phytates
Use of Defatted wheat germ	Certain	FBFs, plant based RUTF and RUSF, HEB	• Source of high quality protein with branched chain amino acids higher than corn
Include oils rich in ω-3 like canola oil	Probably	FBFS, RUTFs, HEB	• Provide ω6:ω3 ratio as close to 1 • Neurocognitive and immune development
Add oligosaccharides for gut health	Likely	FBFs, RUTF and RUSF, HEB	• Need more information on use of fibers for undernourished population
Add synthetic amino acids	Likely	FBFs, plant based RUTF and RUSF, HEB	• Provide highly bioavailable form of lacking/limiting amino acids
Incorporate yeast cell wall	Likely	FBFs, RUTF and RUSF, HEB	• Mycotoxin binding
Compaction of FBFs	Exploratory	FBFs	• Improve shelf life

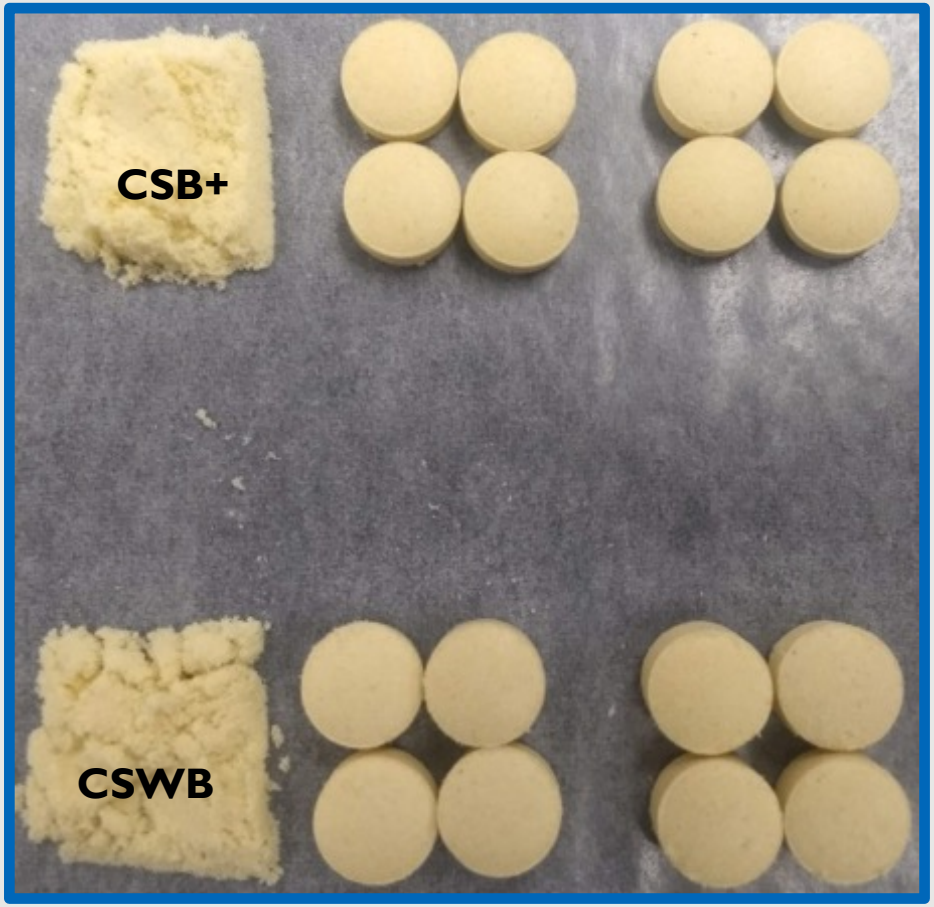
Supporting data for diastatic malt recommendation – viscosity changes in porridge



Mode of action & benefits

- Diastatic malt breaks down the starch and makes the porridge thin
- Would help in complete consumption of the porridge by the kids
- Can also be used to increase the energy and other nutrient density

Supporting data for compaction recommendation – reduction in FBF volume



Estimated cost of implementing recommendations

Recommendations	Cost Changes	Cost implications
Diastatic Malt (@0.25%)	$4.66/MT ↑	**Scenario1:** 0.43% increase in feeding cost/child/day or year **Scenario 2:** 24% increase in feeding cost/child/year
Defatted wheat germ (@ 0-18%)	$14-36/MT ↕	Cost savings of 2-5% depending on 0-100% replacement of soy
Canola oil (@25.7g/day)	$124/MT ↑	20% increase in feeding cost/child/month w.r.t. using vegetable oil
Oligosaccharides – Prebiotics (@0.4-0.8%)	$31-62/MT ↑	8.6% increase in product cost
Synthetic Amino acids (@ <1.5%)	$1.5-33/MT ↑	0.2-4.6% increase in product cost
Yeast cell wall (@0.1-0.25%)	-----	-----
Compaction (@ ≥ 70%)	$102/MT freight cost ↕	32.4% decrease in freight cost and 25% decrease in loading cost/container

Overall Benefits and Next Steps

Benefits

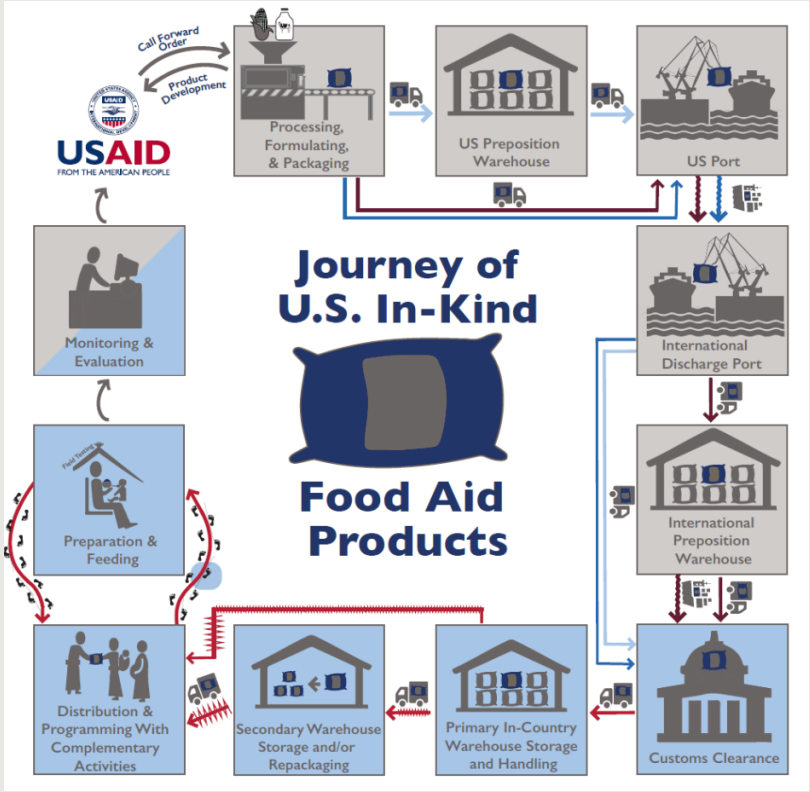
- Improved nutrient bioavailability
- Easy adaptability – no major changes in existing production set-up
- Potential for being 'Cost-effective'

Next Steps

- All recommendations need to be tested for it's actual feasibility
- Shelf-life studies should be planned as matrix components change
- Funding to conduct the trials with modified formulas
- Demand has to be present for new/modified food aid products
- Encourage industry/manufacturers to adapt to changes in formula

Assessment of food aid packaging challenges and future innovations

The Importance of Food Aid Packaging



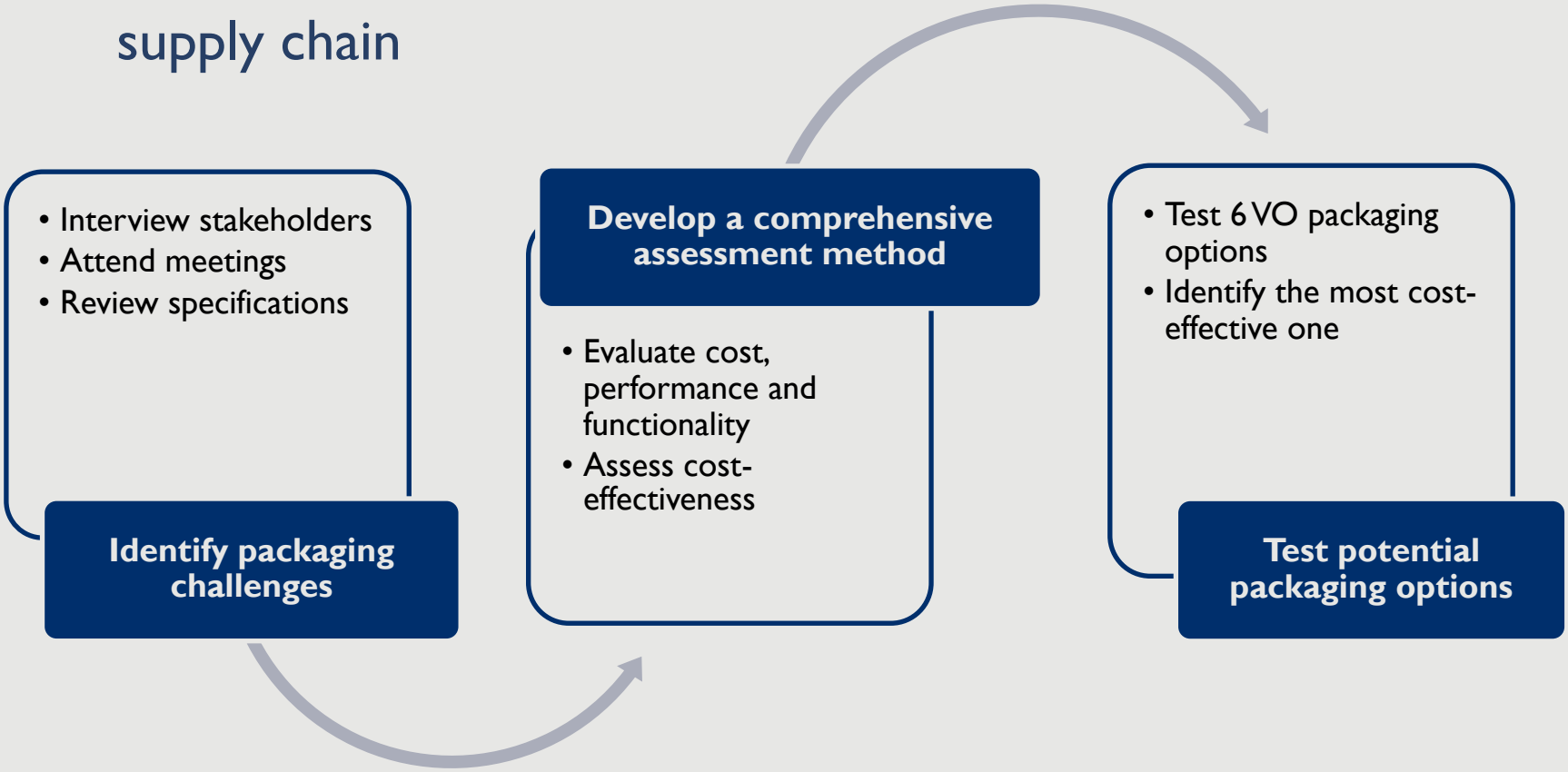
- The food aid supply chain is long and challenging, leading to damage and losses, but also opportunities for change.
- *1-2% of in-kind food aid is lost; much more is reconditioned.*

The Importance of Food Aid Packaging (to achieving nutrition goals)

- Packaging plays a key role in ensuring that food aid products maintain their integrity until they reach the end recipients.

The FAQR Packaging "Workstream"

- The Packaging revision process is a collaborative effort that must involve food aid stakeholders from all levels of the supply chain



Packaging-Related Challenges

Table 1. Main packaging-related challenges identified for FVO, CSB+ and SC+

	FVO	CSB+	SC+
Challenges identified	1. Suppliers use cans with different dimensions which cannot be stacked together during storage in the field 2. Plugs are not practical for distribution of oil. 3. Poor performance of cans leads to leakage and losses (around the plugs, corrosion, compression when stacked)	1. Infestation of CSB+ is very common. 2. The 25-kg multiwall paper bags are prone to breakage. 3. CSB+ becomes rancid before the end of its notional shelf life. 4. Distribution out of bags introduces food safety and quality concerns.	1. Headspace in the pouches and boxes wastes space and results in high shipping costs. 2. Suppliers use bags and boxes with different dimensions, which could eventually lead to the same storage challenges as observed for FVO.
	There are no reliable data on the amount of damage and losses nor on the specific causes and nature of the damage.		

Packaging Assessment – proposed method

- **Objective: Identify the most cost-effective packaging option for each food aid product.**
  - Step 1: **Compare costs**
    - Cost matrix to estimate packaging, production, transport and storage costs based on quotes and data from FAQR field study
  - Step 2: **Test performance**
    - Lab testing to "replicate the supply chain"
  - Step 3: **Assess functionality**
    - Review functionality implications of packaging options at each step of the supply chain
  - Step 4: **Evaluate cost-effectiveness**
    - Grade costs, performance and functionality to calculate a cost-effectiveness score

Packaging Assessment: the case of Fortified Vegetable Oil

Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Metal	Metal	Metal	Metal	Metal	Plastic (PET)
Round	Round	Round	Round	Rectangular	Rectangular
Plug 1	Plug 2	None	Plug 1	Pull-out spout	Twist-on cap

Packaging Assessment – the case of VegOil

	+2	+1	0	-1	-2
Costs	Decrease by more than US$ 3 million	Decrease by US$ 0.5-3 million	Within US$ 0.5 million of control	Increase by US$ 0.5-3 million	Increase > $3,000,000
Sensitivity analysis	-	-	**For options with negative costs scores:** If target packaging cost is within 10% of the estimated cost, add 0.5 to the costs score (-2 becomes -1.5, and -1 becomes -0.5)		
Performance	Average performance score >+1.5	Average performance score between +0.5 and +1.5	Average performance score within +/- 0.5	Average performance score between -0.5 and -1.5	Average performance score < - 1.5
Cost offset	**For options with positive performance scores:** If cost increase is offset with a <1% decrease in losses or <10% decrease in reconditioning, add 0.5 to the performance score.			-	-
Functionality	Average functionality score >+0.5	Average functionality score between 0 and 0.5	Average functionality score = 0	Average functionality score between 0 and -0.5	Average functionality score < -0.5

Packaging Assessment – the case of VO

Cost Effectiveness Score:

CE= [costs+sens. analysis]*0.40+[perf+costs offset]*0.30+[functionality]*0.30

Moving Forward – Implications

→Offers an **overview of the current packaging-related challenges** faced by stakeholders along the entire food aid supply chain

→Proposes a **comprehensive approach** to ensure that all potential consequences of a packaging switch have been considered and that the **most cost-effective option** is identified

→Provides **baseline data** for decision-makers to compare VO packaging options

Moving Forward – Next Steps

- **Collect systematic feedback** on packaging performance in the field

- **Confirm cost data** to verify the financial implications of switching to a new packaging

- **Test additional packaging options** following the same method to assess and compare their cost-effectiveness

- **Trial in the field** to confirm performance when exposed to real life conditions

Lessons Learned

Packaging has become a priority area. FFP has involved stakeholders to collectively address packaging challenges, and all have become sensitized to the **importance of packaging in effective food aid procurement**.

→ The packaging revision process must be a **collaborative effort** so that a comprehensive approach can be taken.

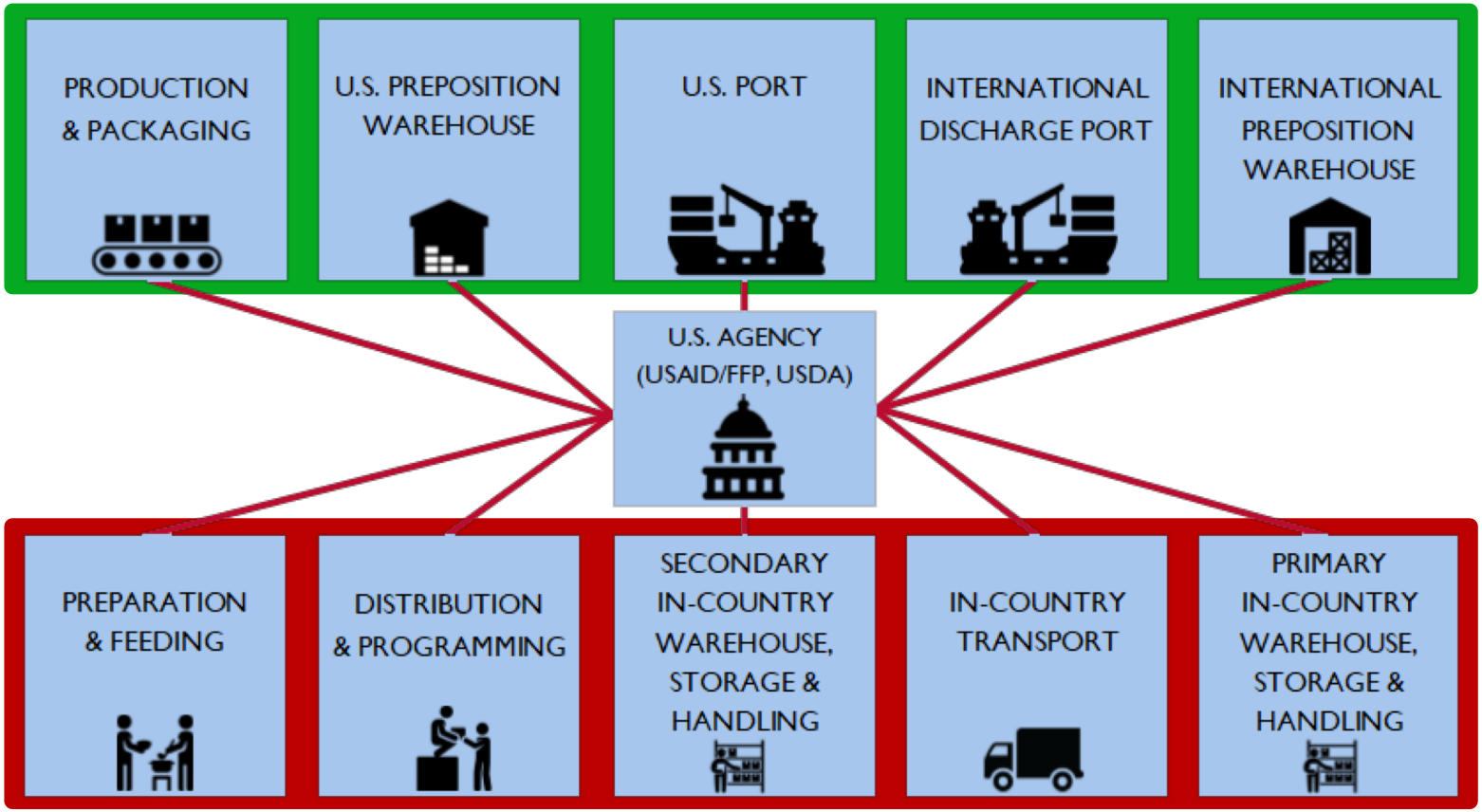
→ Suppliers must be provided with **specific feedback** so that they can improve their packaging accordingly.

→ There is high **demand for packaging improvements** within the implementing partners community.

Food Safety & Quality Assurance Feedback Loop Systems

Analysis of Current Systems and Recommendations for Implementing an Updated System

What is a Food Safety & Quality Assurance Feedback System?

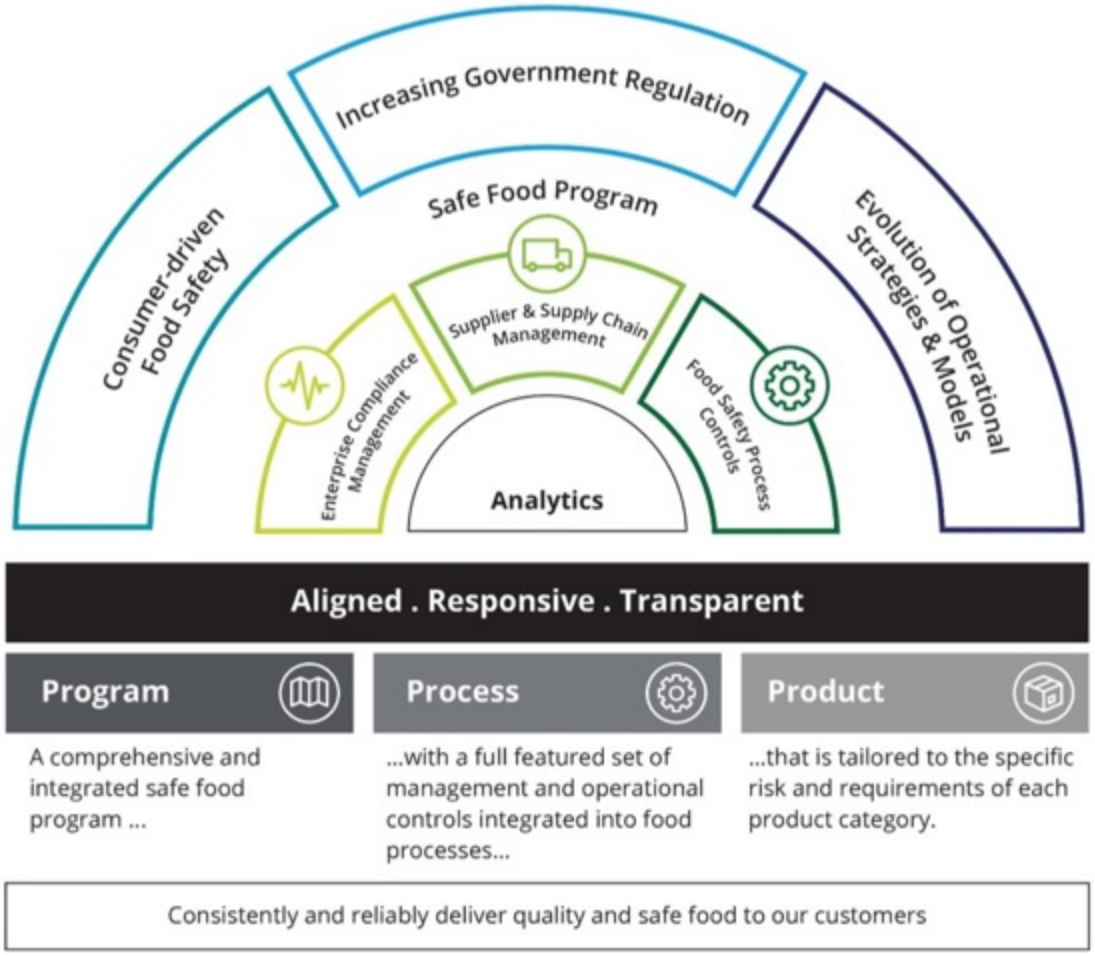


- Food Safety & Quality Assurance (FSQA) systems ensure that food and ingredients are safe and of high quality
- FSQA Feedback Loops help to identify, report and address incidents anywhere along the supply chain, building the evidence base for improvements to products and systems

The Food Safety System: *Managing Issues & Incidents*

Food Safety Systems set measures to manage the risk to consumers from unsafe/unsuitable food in a timely and effective manner.

A food safety issue/incident is any situation within the food supply chain where there is a risk, potential risk or perceived risk of illness or confirmed illness associated with the consumption of a food or foods.



Source: Deloitte

The FSQA Feedback System: *Challenges of Food Aid Supply Chain*

- **The food aid supply chain is long and often harsh on products**
- Must maintain safety and high quality of products throughout supply chain to ensure that food aid products reach the right consumer at the right time.
- **Product performance downstream is largely unknown** due to under-reporting and lack of in-country information:
  - Evidence gaps hinder innovation and continuous improvement within the supply chain

Dented FVO can

Organoleptic issue with SNP

Methods

- **Assessed** four existing Food Safety and Quality (FSQA) feedback systems
- **Interviewed** key informants
- **Identified best practices** from U.S. Government and commercial sources
- **Developed and pilot tested a new multiplatform Food Incident & Quality Questionnaire (FIQQ)** to simplify reporting and aggregation of incident data

FSQA Feedback Systems Reviewed:

USAID
- Program Operation Division | POD
- Quarterly Web Interfaced Commodity Reporting | QWICR

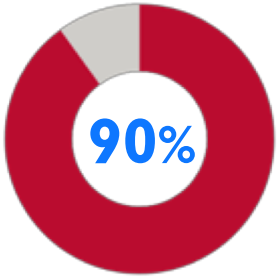
USDA
- Web-Based Supply Chain Management | WBSCM

WFP
- Feedback Loop

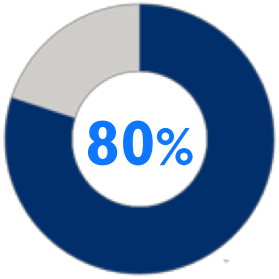
Analysis of Current Food Safety & Quality Feedback Systems

	USAID/FFP FEEDBACK SYSTEM	USAID QWICR	USDA WBSCM	WFP FEEDBACK LOOP
EASY TO USE	✗	✓	✓	✗
TIMELY	✗	✓	✓	?
FSQA INCIDENTS	✗	✗	✓	✓
MONETARY LOSSES	✓	✓	✓	✓
PHOTOS	✓	✗	✓	✓
DATA STORAGE	✗	✓	✓	?
DATA ANALYSIS	✗	✗	✓	✗
DEDICATED STAFF	✗	✗	✓	✓
REPORTING THRESHOLD	$500	$500	$0	$10,000

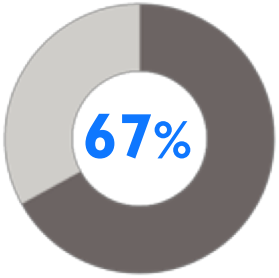
Lessons Learned



Complex feedback loops slow down the distribution and resolution process



Implementing partners cite "blame" as a main limiting factor in under-reporting incidents and food loss

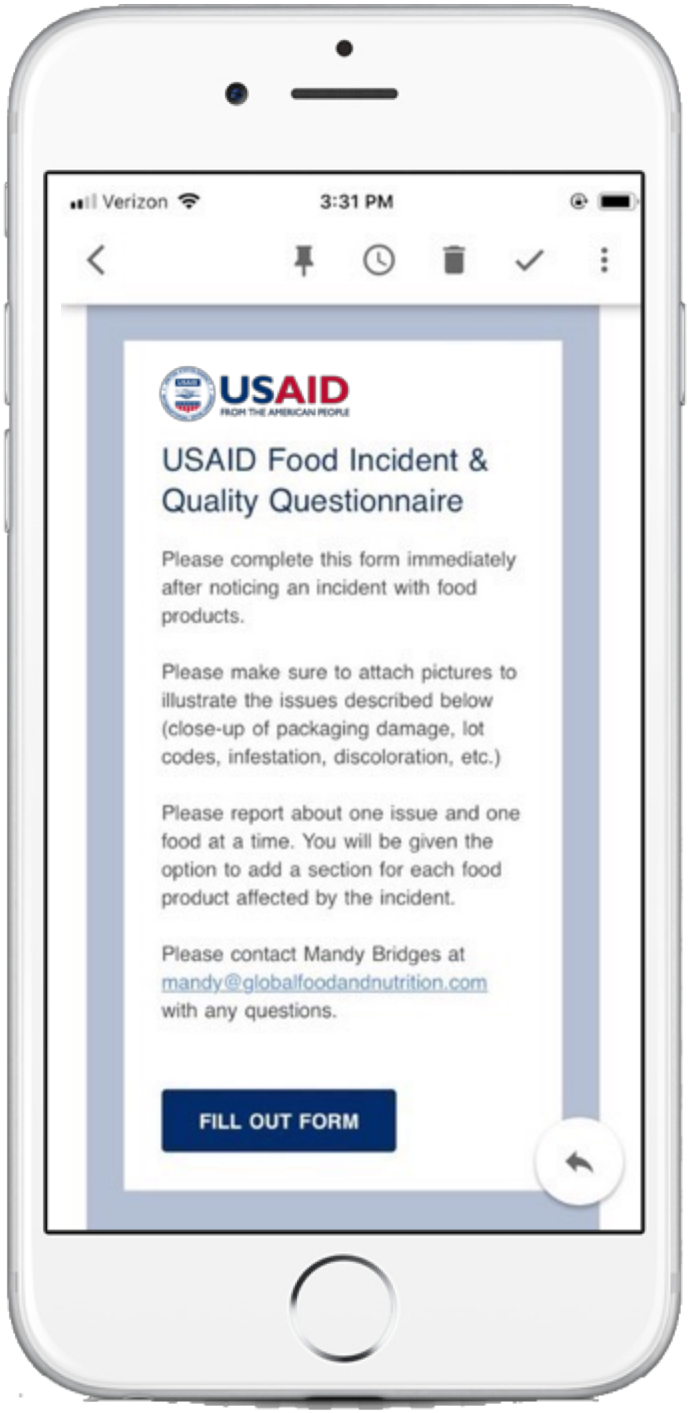


Stakeholders down to the last mile have access to mobile devices

There is a current need for a multiplatform system including computer, tablet, paper, and mobile application input options

Recommendations

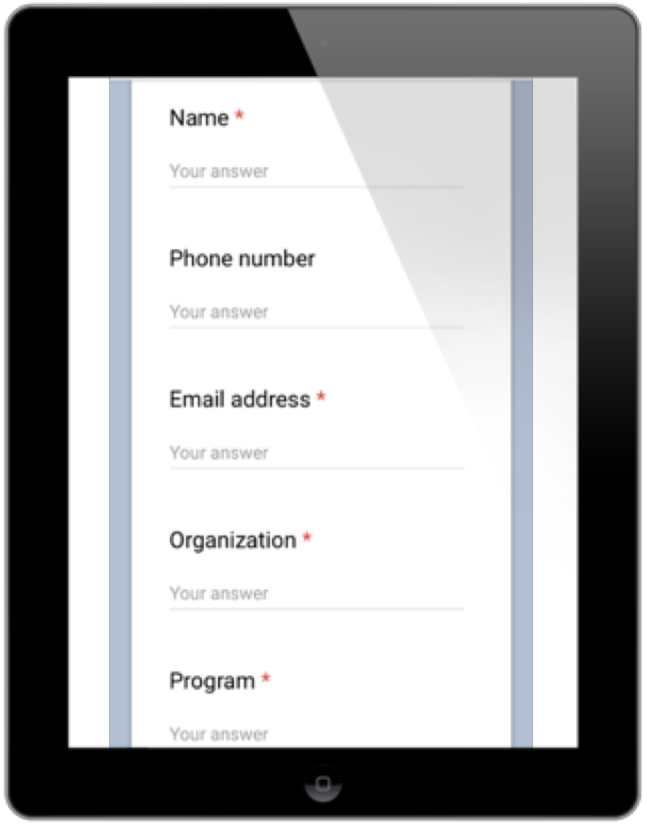
- **Modernize** reporting system to ensure all incidents/issues are reported
- **Collect** data to isolate root causes, resolve incidents and build minable database for long-term improvement (pilot test)
- **Review** the quality and relevance of information collected through the new feedback system
- **Focus** on reaching out to in-country officers for information on how products are handled downstream (gather more information from downstream points)
- **Link** to USDA's WBSCM complaints reporting module and integrate into current U.S. Government food aid supply chain system



https://goo.gl/forms/BDawA4pTtQ9s2y062

Next Steps

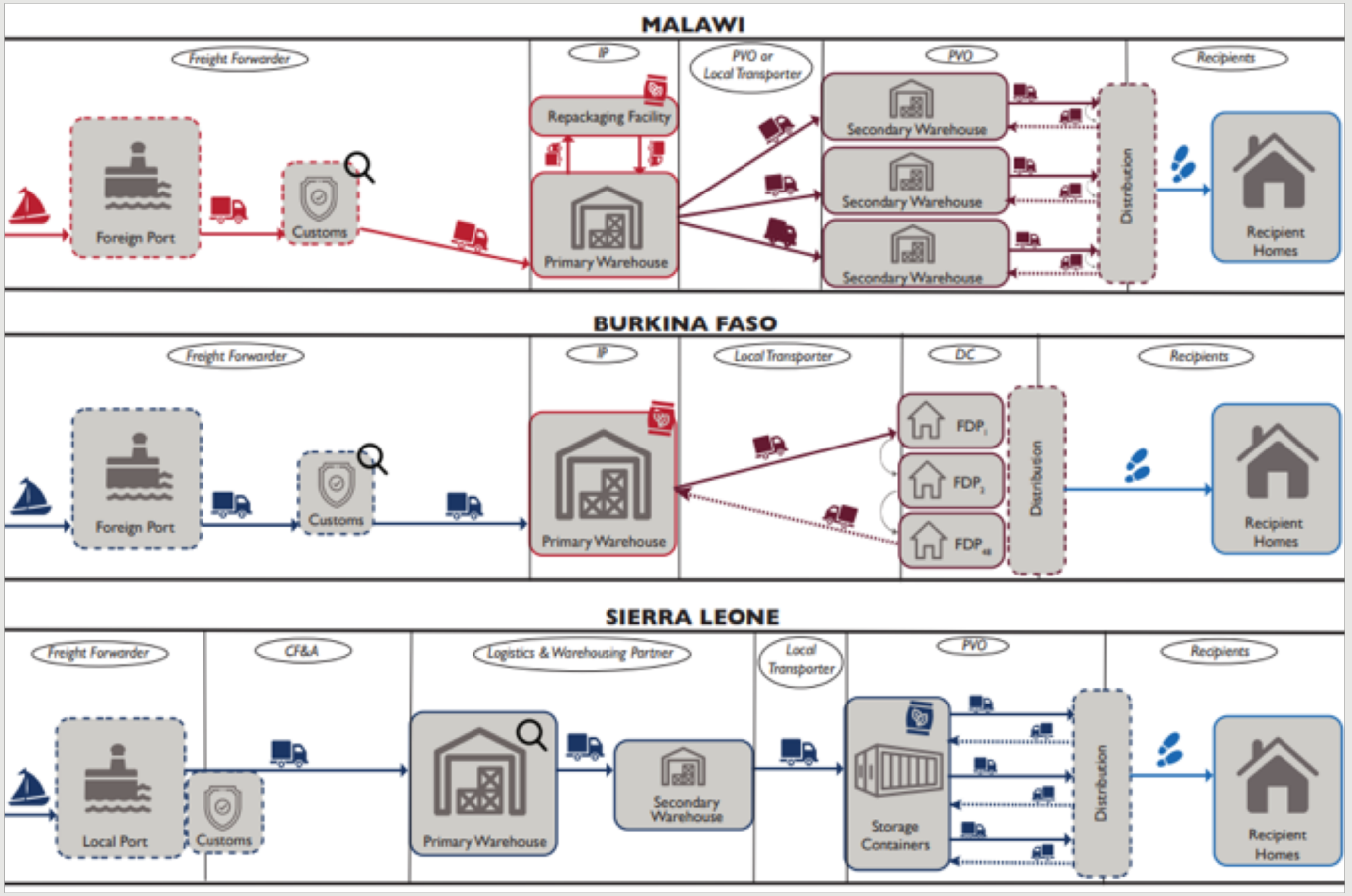
1. **Hold structured partner-level consultations** to understand field issues and increase feedback from implementing partners
2. **Pilot the new feedback system**
3. **Refine method to implement and scale up the system**
4. **Develop a decision tree** for resolving FSQA incidents/issues and flow chart with next steps and responsible decision makers
5. **Continue to enhance interaction between USG agencies, private sector, and international partners** to standardize formats and ensure clear expectations and buy-in



Possible Efficiency Gains in the Last Mile of Food Aid Distribution

The Last Mile of Distribution

Definition: the section of the food aid supply chain between reception of the foods by the main implementing partner and consumption by the recipients.



The Last Mile of Distribution

Objective: provide insight to donors on how the foods are handled once they arrive in country and identify points of possible improvement.

The FAQR Last Mile Activities

- Draw from FAQR field studies in Southern Malawi, Northeastern Burkina Faso, and Southern Sierra Leone:

  →Reviewed interview and focus group transcripts.
  →Collected feedback from implementing partners, program volunteers (community members) and recipients.

- Focused on logistical challenges: transport, storage, distribution, accessibility to the villages, and overall coordination among the different stakeholders involved.

Main Challenges Discussed

Key Takeaways

1. Coordinating among multiple stakeholders: responsibilities must be well defined and communication channels need to be established.

2. Developing context-specific scenarios: implementing partners should be given flexibility to adapt to their environments.

3. Using volunteers for distribution: stakeholders should be conscious of the time burden and should consider compensating them for their work.

4. Considering recipients' practices: efforts should be dedicated to understanding the feasibility of programs' guidelines from the recipients' perspective.

5. Increasing last mile spending: stakeholders should consider increasing resources allocated to last mile operations to optimize cost-effectiveness.

Moving Forward – Next Steps

→Increase efforts **to gather last mile data** and quantify potential cost-effectiveness gains.

→Continue **knowledge-sharing** efforts to build more cost-effective programs. *Every last mile scenario is unique, but stakeholders can learn from each others nonetheless.*

Lessons Learned

→ Programs should be considered in their entirety – ineffective last mile operations can negate the benefits of an effective upper supply chain, and vice versa.

→ Perspectives from all stakeholders, including recipients and volunteers, should be considered when evaluating the cost-effectiveness of food assistance programs.

Conclusions and Next Steps

Future Food Assistance Priorities

1. **More rigorous studies that document best practice for food assistance in *all* humanitarian contexts**, with particular attention to measurable impacts on a diverse range of relevant maternal and child nutrition outcomes. **This acquires appropriate resources.**

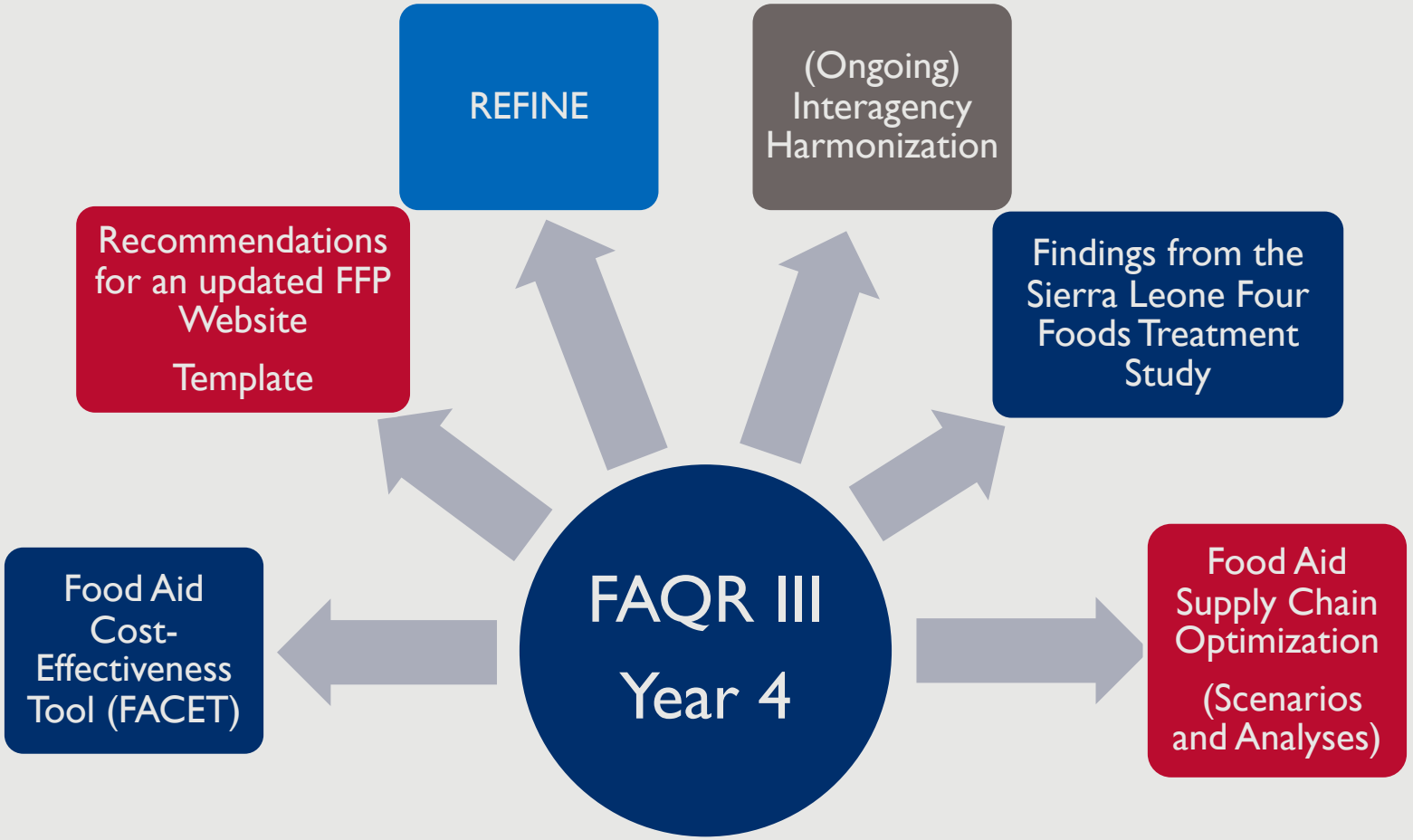
2. **Innovations should be promoted** in product formulations, food packaging technology, food safety quality, and food aid supply chain optimization tools.

3. **No one donor, government or agency can effectively operate alone.** Multi-sectoral and multi-institutional collaboration and communication must be enhanced.

4. **Investments should increase in advanced data systems** to capture reliable and comprehensive food assistance trends.

5. **Metrics of nutritional status need to go beyond physical growth of children** to include brain development, gut health, and body composition to provide a physiological understanding of malnutrition.

What comes next…February 2019-January 2020



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