



Development and Testing of a Fortified Blended Weaning Food

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March 18, 2010



About FMSC

- Minnesota-based Christian nonprofit founded in 1987
- 4 permanent facilities plus mobile operation
- Scientifically-formulated products
- Packaged by volunteers
- Distributed via global partnerships



*Feeding God's Starving Children
Hungry in Body and Spirit*



- MannaPack™-Rice
 - 95% of FMSC production & distribution
 - Contains rice, TSP, vegetables, vitamin/mineral premix & flavoring
 - Used in schools, orphanages, clinics & community feeding programs





FMSC's Current Products

- MannaPack™-Potato
 - Diarrhea-management product
 - Contains potato, soy flour, vitamin/mineral premix, flavoring
 - Utilized effectively in clinical settings





Filling the Gap



- Distribution partners express need for a weaning food
- MannaPack™-Rice appropriate for age 1 and older
- MannaPack™-Potato manages diarrhea for all ages
- Gap in relief foods that can be used for weaning



Rationale for a Weaning Product

- Product to target children 7-12 mos in clinical settings, orphanages, & community feeding programs
- Statistics:*
 - 26% of children <5y in developing countries are underweight
 - The infant mortality rate (<1y) is 49 per 1,000 live births in developing countries, and 82 per 1,000 in the least developed countries

* Data taken from *The State of the World's Children 2010: Child Rights*, www.unicef.org.



Weaning Formulation: Ingredients

- Weaning formulation meets WHO guidelines for 7-12 month olds.
- Similar to diarrhea-management product.
- Ingredients chosen to:
 - Fulfill nutrient needs
 - Fit FMSC packing model and cost requirements
- Ingredients include:
 - Dehydrated potato granules
 - Re-fatted soy flour
 - Flavoring
 - Vitamin/mineral premix



Weaning Formulation: Nutrients

- Nutrient composition
 - WHO information on typically deficient nutrients
 - Calories, protein
 - Vitamin A, iodine, iron
 - DRIs for 7-12 month olds
- Biggest challenges were calories and fat content



Anticipated Uses

- Distributed alongside MannaPack™-Rice or other products
- Community distribution with education about product and preparation
- Other settings:
 - Orphanages
 - Clinics





Anticipated Monitoring

- Anecdotal feedback from distribution partners
- Informal data collection in clinics and orphanages
- Formal clinical trial to test impact and acceptability



Potential Modifications

- Based on partner feedback
 - Flavor
 - Packaging
- Based on cost
 - Components
 - Packaging
- Based on volunteer packaging experience
 - Production methods
 - Components





Summary

- Need for a weaning food
 - Need expressed by FMSC distribution partners
 - Gap in available products
- Nutritional needs can be met with a potato-soy blend product
- Distributed alongside other products



Summary (cont'd)

- Formal and informal monitoring of product usage
- Feedback from volunteer packagers
- Consider modification
- Balancing cost & quality

