

**WISHH**

World Initiative for Soy in Human Health  
*Enhancing human well-being through soy*



GIVING HOPE TO A  
WORLD OF NEED

*The official international relief and development  
agency of the U.S. Catholic community*



# WISHH Research Activities: CRS-WISHH Project

PROTEIN SUPPLEMENTATION WITH VALUE-  
ADDED SOY PRODUCTS (VASPS) IN  
COLLABORATION BETWEEN WISHH AND  
CATHOLIC RELIEF SERVICES-KENYA FOR THEIR  
ORPHANS AND VULNERABLE CHILDREN (OVC)  
PROGRAM IN THE NYANZA PROVINCE IN KENYA

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# Interventions

- Four groups
  - Soy + Beans + Maize
  - Soy only
  - Beans + Maize only
  - Control
- All received education on basic nutrition, food/water safety
- Soy groups received training on use of VASPs

# Methods

- Four partner sites chosen
- Measures (baseline and 6-month follow-up)
  - Demographics
  - Height
  - Weight
  - Mid-Upper Arm Circumference (MUAC)
  - Strength (hand grip)
  - Symptoms: respiratory illness, diarrhea
  - Program use, acceptability, understanding for soy groups @follow-up

# Methods (cont'd)

- 50 households per site invited
- Educators hired, trained, and equipped with educational materials, recordkeeping, and bicycles
- Measures evaluated for prevalence of nutritional problems in adults and children at baseline and follow-up
- Acceptability/use/understanding evaluated for soy groups

# Results

- 191 families enrolled; 727 measures completed at baseline
- 283 measures completed at follow-up
- Project took place during months of widespread drought and famine
  - In some cases, the rations provided were the only foods available at times

# Objective Measures: Overall

- 47% gained wt; 23% maintained wt
- 32% improved MUAC; 37% maintained
- Improved hand grip in 17% (right) and 24% (left)
- Maintained hand grip in 53% and 47%

# Objective Measures: Children

## ■ Baseline

- 66% no failure
- 21% stunted
- 11%  
underweight
- 2% wasted

## ■ Follow-up

- 62% no failure
- 21% stunted
- 15%  
underweight
- 2% wasted

# Comparison of Groups: Children

Group	Stunted	Wasted	Underwt
B/M/S (110)	3+/8- (3%/7%)	1+/2- (1%/2%)	8+/4- (7%/4%)
B/M (140)	2+/9- (1.5%/6.5%)	3+/1- (2%/1%)	5+/3- (3.6%/2%)
Soy (198)	3+/21- (1.5%/10.6%)	3+/2- (1.5%/1%)	10+/8- (5.1%/4%)
Control (180)	3+/12- (1.7%/6.7%)	1+/0- (0.6%/0%)	7+/7- (4%/4%)

# Use/Understanding/Acceptability

- Between 3-11 people used household rations (mean 5.5)
- All knew how to prepare food
- Rations lasted 7-30 days (mean 23 days)
- Liked extremely/liked
  - Food appearance 96%
  - Food taste 95%
  - Mouthfeel 97%
  - Overall 97%

# Use/Understanding/Acceptability

- Healthy 97%
- Why received 61%
- How long received 54%
- Believed soy had an impact 84%
  - 11% didn't know

# Use/Understanding/Acceptability

- Both soy products well-liked
  - Most preferred the TSP over flour
- TSP rehydrated, used in stews and fried with vegetables
- Flour used in porridge and chapati

# Use/Understanding/Acceptability

- Comments included:
  - Positive: like taste, feel energetic and stronger, don't feel hunger after eating TSP, kids like, would like to continue receiving, many thanks
  - Negative: 3 cases of stomach upset, product not properly hydrated used too much oil, problems getting water, took a while to get used to it

# Summary

- Nutrient priorities are still important
  - Soy protein source works best with adequate calorie source
  - Addition of soy improved results for weight catch up and strength
  - The addition of calories and protein may blunt the impact of drought and famine
- VASPs in the form of TSP and DSF are highly acceptable by both adults and children



LA NGAU  
MULTIPURPOSE  
GROUP (RAGUBA)  
BOX 94, KARUNGU



THIS OFFICE OFFICIALLY  
OPENED BY DISTRICT  
COMMISSIONER MIGOR  
R. KARUNGU



