Abstract

Severe Acute Malnutrition (SAM) is an ongoing problem in developing countries. With the use of Ready-to-Use Therapeutic Foods (RUTF) as opposed to the regular corn/soy blend, SAM can be treated more efficiently. A study in Malawi will serve as proof.

Background

- SAM: weight-for-height measurement of 70% or > below average
- A mid-upper-arm circumference less than 10 cm in children aged 1-5
- Accounts for over half the preventable deaths in developing country children
- Corn/soy blend has been the staple treatment with minimal success.





Corn/soy blend

RUTF

Severe Acute Malnutrition In Malawi Francis Lubega (ECE), Brian Mahan (ECE) **Advisor: Professors Jill Rulfs (Biology) & Helen Vasallo (Management)**

Methods

- Settle upon 2 groups of children with SAM.
- Provide one w/RUTF the other w/the corn/soy blend.
- Record body changes every 2 weeks.



- Continue process for 8 week period. • Compare both groups after 8 week cycle. • See children for a 6 month follow up and
- measure growth, weight gain etc. • Compare both groups again.

Predicted Results

Ready to use **Standard Fortified Therapeutic Food Corn/Soy Blend**

- Weight-for height>90%
- 85% <weight-forheight,90%
- Weight-for-height <85%
- Relapsed or died
- Dropped out



	F	Pre	di	cte
p/mm	0.35			
	0.3			
	0.25			
	0.2			
	0.15			
	0.1			
	0.05			
	0		1	2
			←Cori	n/ Soy I n/Soy A

- month period.

The study illustrates that RUTF is more effective in combating SAM compared to the standard corn/soy based supplementary food, helping children grow, gain & maintain weight. The study could be expanded to more developing countries to increase RUTF use.

- UNICEF Ethiopia [Photograph]. (2014)
- 5. STOP SAM [Photograph]. (2013). Retrieved from http://stopsam.org/blog/2013/7/20/so-what-is-r 6. WFP/Siegfried Modola [Photograph]. (2011). Retrieved from https://www.wfp.org/photos/preparing-food-corn-soy-blend-and-vegetable-oil-kenya



60% taking RUTF recovered from SAM while just 21% taking the corn/soy blend.

9/100 children (RUTF) & 22/100 (corn/soy) didn't make a weight-for-height ratio above 85%.

46/68 children (RUTF) maintained a healthy weight compared to 10/65 (corn/soy) after a 6

Conclusions

References