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

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.

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
- 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 month period.

Conclusions
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.

References