

## MANGO PROJECT

### RANDOMIZED CONTROL TRIAL IN NON-INFERIORITY

**Where:** 10 health centers in the district of Fada N'Gourma, Burkina Faso

**When:** 2015-2020

**Who:** 801 children aged 6 to 59 months  
SAM according to WHZ < -3 and/or MUAC < 115mm with appetite

**What:** To prove under ideal conditions the efficacy of a reduced dose of RUTF compared to a standard dose during the treatment of uncomplicated Severe Acute Malnutrition in children aged 6-59 months.



Standard Dose  
n=399



Reduced Dose  
n=402

Reduced dose from 3rd week onward, according to the child's weight.

#### Scientific Partners and Funders :

CIFF, ECHO, HIF- ELRHA, AAH Foundation  
Univ. of Copenhagen, Centers for Disease Control and Prevention, (CDC, USA)

## ENERGY AND NUTRIENT INTAKES

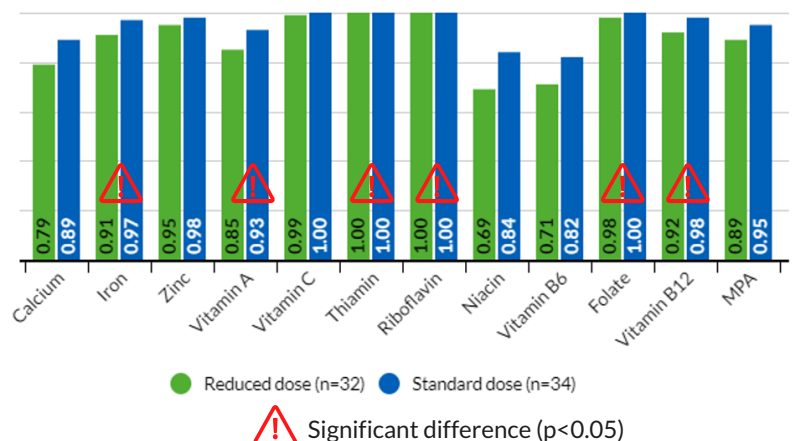
### ENERGY AND NUTRITIONAL INTAKES WERE COVERED IN BOTH GROUPS

#### Data Collection

24 Hour Dietary Recall conducted at week 4 or 5 of treatment among 243 children in the reduced dose group and 273 in the standard dose group, listing and quantifying all food and beverages consumed (excluding breast milk) in the past 24 hours. Food consumed was converted to nutrients using a food composition table created for the study.

A second recall was conducted with 66 mothers. This allowed calculation of individual micronutrient probabilities of adequacy and the mean probability of adequacy (MPA).

Probability of micronutrient adequacy with a reduced and a standard dose



#### Results

The reduced dose group had a significantly lower energy intake ( $p < 0.001$ ) than the standard group (1321 kcal vs 1467 kcal). Nevertheless, the Recommended Nutrient Intakes (RNI) of children of the same age, were covered in both groups. Taking into account only RUTF intake, the reduced dose would cover only 92% of the RNI.

Family and complementary food contributed significantly to daily energy intakes in both groups: 40% reduced dose, 35% standard dose.

The mean probability of micronutrient adequacy (MPA) is similar in both groups when adjusted for energy. There is no difference in calcium, zinc, vitamin C, niacin, and vitamin B6. However, the reduced dose of RUTF leads to a decrease in the coverage of iron, vitamin A, thiamin, riboflavin and vitamin B12.

#### Key Takeaways

The other foods consumed in addition to the RUTF provide a lot of energy. Reducing the dose does not appear to change dietary practices.

#### GLOSSARY

<b>MPA</b>	Mean Probability of Adequacy
<b>MUAC</b>	Mid Upper Arm Circumference
<b>RNI</b>	Recommended Nutrient Intake
<b>RUTF</b>	Ready-to-Use Therapeutic Food
<b>SAM</b>	Severe Acute Malnutrition
<b>WHZ</b>	Weight for Height Z-score