

MANGO PROJECT

RANDOMIZED CONTROL TESTING 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 (Denmark), Centers for Disease Control and Prevention (CDC, USA), University of Abomey-Calavi (Benin) and UCL

DIETARY DIVERSITY AND FACTORS OF DIVERSITY



DIETARY DIVERSITY IS SIMILAR IN BOTH GROUPS OF CHILDREN

Data collection

Multipass 24-hour dietary recall was conducted at week 4 or 5 of treatment among 219 children in the reduced dose group and 240 in the standard dose group. This consisted in listing and quantifying all foods and beverages consumed (excluding breast milk) in the past 24 hours.

The main results of this study are based on the Dietary Diversity Score (DDS) of children treated with a reduced or standard dose of RUTF. The DDS is calculated according to the number of food groups consumed by the child in the last 24 hours among 8 groups: breastmilk; grains, roots and tubers; legumes, nuts and seeds; dairy products; flesh foods; eggs; vitamin A-rich fruits and vegetables; and other fruits and vegetables.

Results

These results are for family foods only, not including the RUTF.








The dietary diversity score is 4 food groups consumed on average in both groups of children.


The most consumed groups are grains, roots and tubers, legumes, nuts and seeds, and flesh foods (mainly dried fish in this region of Burkina Faso).

Supplementary feeding practices did not differ according to the dose of RUTF received, except for the Minimum Meal Frequency (MMF). The MMF is higher in the reduced dose group. This may be explained by the more frequent consumption of the family foods when children received the reduced dose.

Some factors significantly improve DDS: children between 12 and 23 months, educated caregiver, non-Fulani cultural group, wealthy household living in urban area, child sick the week prior and rainy season.

Determinants of dietary diversity score of SAM children during treatment

DDS			
Child's sexe		Caregiver's ethnic group	
Male	3,95	Fulani	3,63 
Female	4,12	Mossi	4,26
Child's age		Gourma	4,07
< 12 months	3,91 	Others	4,30
≥ 12 months	4,24	Household's food security	
Child's morbidity		Food secure	4,01
No	3,97 	Mid food insecurity	4,21
Yes	4,34	Moderate and severe FI	4,19
Stunting at admission		Household's wealth index	
No	4,16	Low	3,81
Yes	3,95	Medium	3,92 
Caregiver's education		High	4,26
No	3,92 	Household's residence	
Yes	4,41	Rural	3,98
Caregiver's age		Urban	4,37 
< 25 years	4,14	Season of interview	
≥ 25 years	3,98	Rainy season	4,23
		Dry season	3,91 

 Significant difference (p<0.05)

Key takeaways

All SAM children consumed **diversified family foods** in addition to RUTF. DDS and other dietary indicators **were not influenced by the reduced dose** but by a number of factors at the caregiver, household and community levels.

GLOSSARY

DDS	Dietary Diversity Score
MMF	Minimum Meal Frequency
MUAC	Mid Upper Arm Circumference
RUTF	Ready-to-Use Therapeutic Food
SAM	Severe Acute Malnutrition
WHZ	Weight For Height Z-score