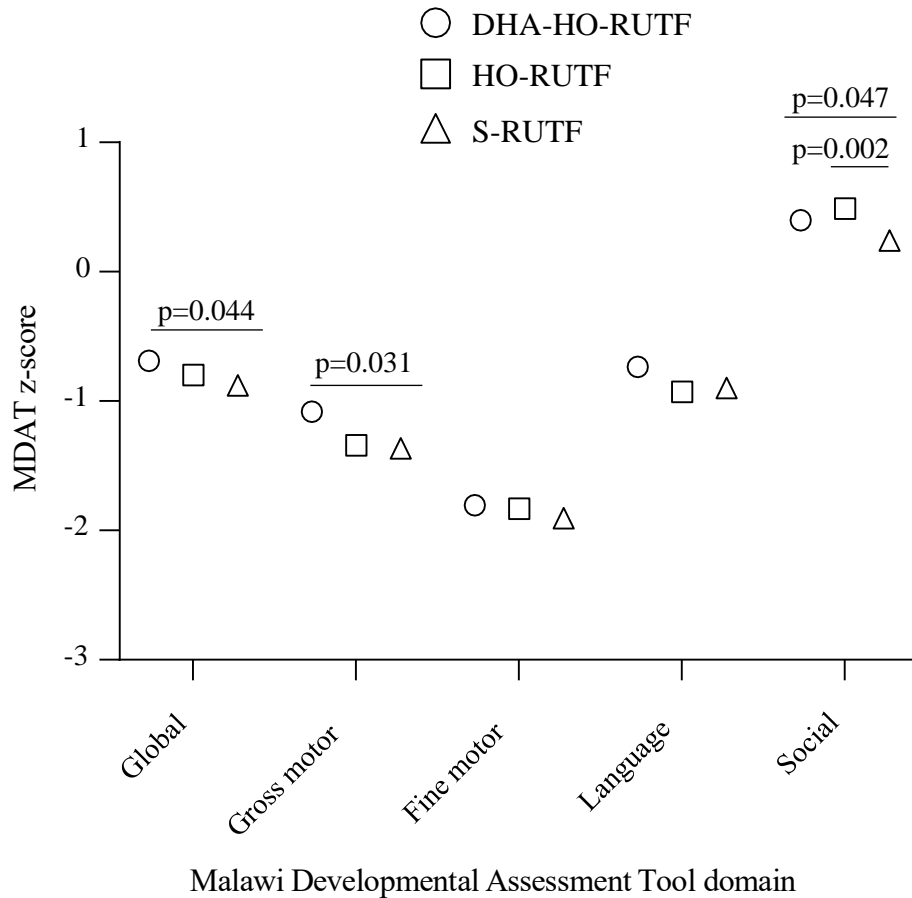Online Supporting Material: Low linoleic acid foods with added DHA given to Malawian children with severe acute malnutrition improve cognition: a randomized, triple blinded, controlled clinical trial. Stephenson et al
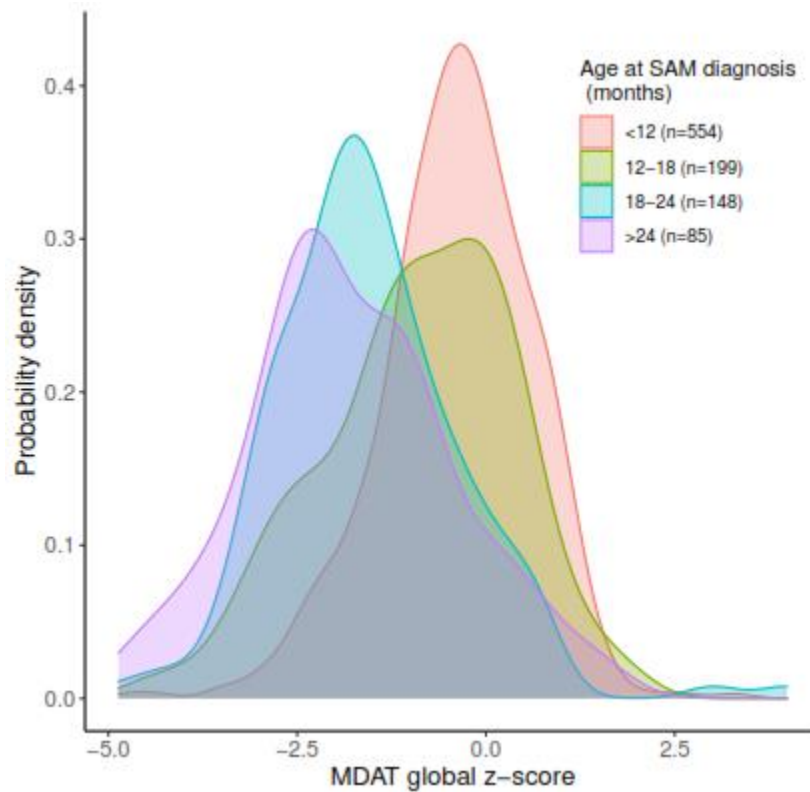
Table of Contents:

Supplementary Figure 1. Malawi Developmental Assessment Tool (MDAT) global and domain z-scores of children receiving RUTF made with high oleic acid peanuts with added docosahexaenoic acid (DHA-HO-RUTF), RUTF made with oleic acid peanuts but without added DHA (HO-RUTF), or standard RUTF (S-RUTF). Symbols represent means. Z-scores were compared pairwise using Student's t test and p-values <0.05 are reported with bars overlying comparisons. Global $n_{DHA-HO-RUTF} = 332$, $n_{HO-RUTF} = 312$, $n_{S-RUTF} = 342$. Gross motor domain $n_{DHA-HO-RUTF} = 331$, $n_{HO-RUTF} = 312$, $n_{S-RUTF} = 342$. Fine motor $n_{DHA-HO-RUTF} = 323$, $n_{HO-RUTF} = 306$, $n_{S-RUTF} = 337$. Language $n_{DHA-HO-RUTF} = 331$, $n_{HO-RUTF} = 312$, $n_{S-RUTF} = 342$, $n_{DHA-HO-RUTF} = 332$, $n_{HO-RUTF} = 311$, $n_{S-RUTF} = 342$

Online Supporting Material: Low linoleic acid foods with added DHA given to Malawian children with severe acute malnutrition improve cognition: a randomized, triple blinded, controlled clinical trial. Stephenson et al
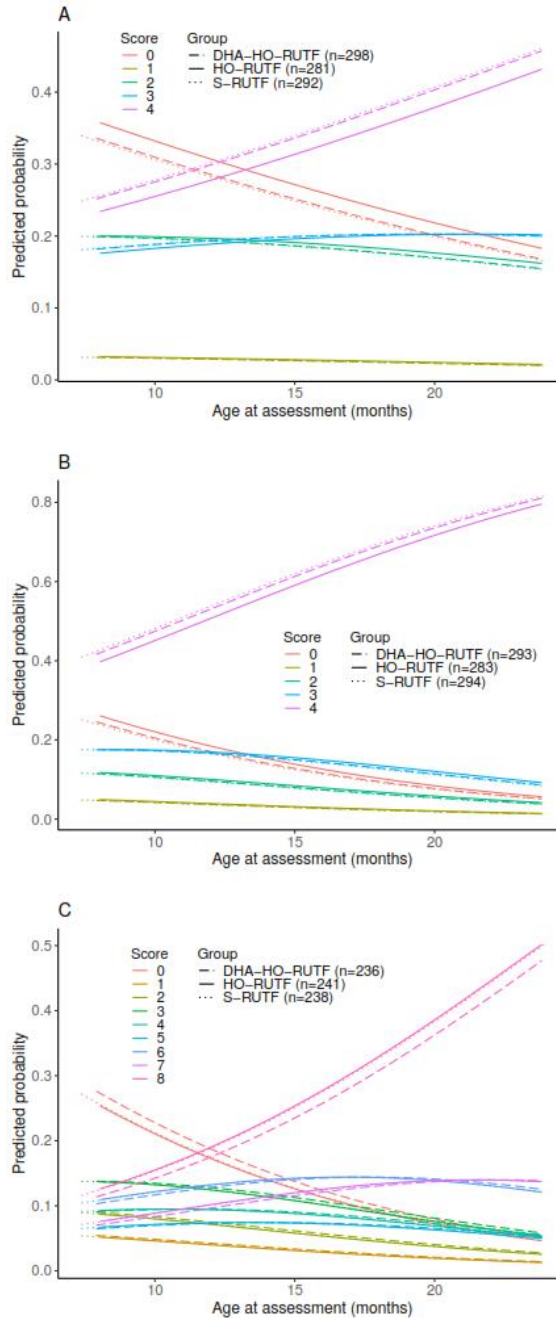

Supplementary Figure 2. Probability density plots of Malawi Developmental Assessment Tool (MDAT) global z-scores based on age in months of participant when diagnosed with severe acute malnutrition (SAM). Probability densities were constructed using kernel density estimation.

Online Supporting Material: Low linoleic acid foods with added DHA given to Malawian children with severe acute malnutrition improve cognition: a randomized, triple blinded, controlled clinical trial. Stephenson et al

Supplementary Figure 3. Predicted probabilities of problem solving assessment (PSA) intention scores and age at assessment of children receiving RUTF made with high oleic acid peanuts with added docosahexaenoic acid (DHA-HO-RUTF), RUTF made with oleic acid peanuts but without added DHA (HO-RUTF), or standard RUTF (S-RUTF). Predicted probabilities generated from the ordinal logistic regression model. Colors represent intention score and line dash denote food group. Plot A is problem 1 where the highest intention score given was 4 and lowest intention score was 0; DHA-HO-RUTF n=298; HO-RUTF n=281; S-RUTF n=292. Plot B is problem 2 where the highest intention score given was 4 and lowest intention score was 0; DHA-HO-RUTF n=293; HO-RUTF n=283; S-RUTF n=294. Plot C is problem 3 where the highest intention score was 8 and lowest was 0; DHA-HO-RUTF n=236; HO-RUTF n=241; S-RUTF n=238.
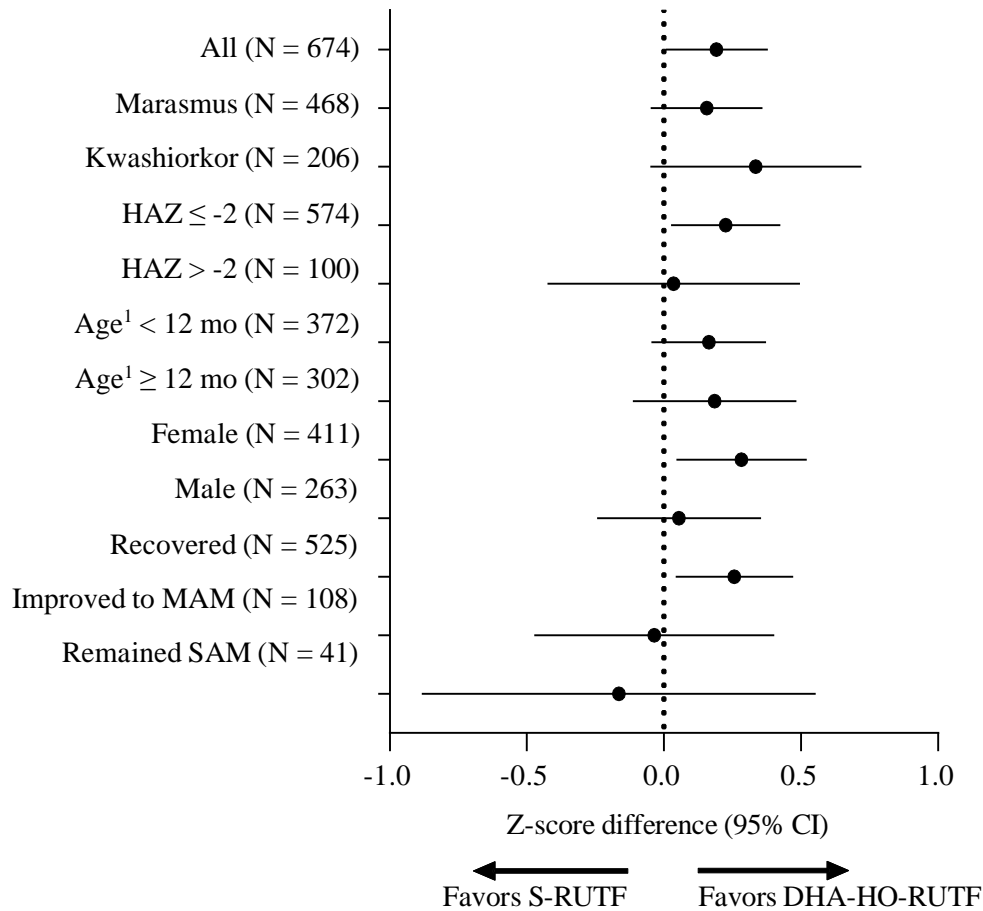
Supplementary Figure 4. Subgroup differences in Malawi Developmental Assessment Tool Global z-score between of children receiving RUTF made with high oleic acid peanuts with added docosahexaenoic acid (DHA-HO-RUTF) and standard RUTF (S-RUTF). Global z-score differences calculated by subtracting z-score means in S-RUTF group from those in DHA-HO-RUTF group. HAZ, height-for-age z-score; MAM, moderate acute malnutrition; MDAT, Malawi Developmental Assessment Tool; SAM, severe acute malnutrition. Kwashiorkor defined by presence of bilateral pedal pitting edema. Marasmus defined by either WHZ < -3 or MUAC < 11.5 cm.
[1]Age at time of episode of severe acute malnutrition.

Online Supporting Material: Low linoleic acid foods with added DHA given to Malawian children with severe acute malnutrition improve cognition: a randomized, triple blinded, controlled clinical trial. Stephenson et al

Supplementary Table 1. Nutrient composition of study ready-to-use therapeutic foods per 100g of RUTF

Nutrient	DHA-HO-RUTF	HO-RUTF	S-RUTF	Specification[1]
Energy, kcal	532	531	541	520-550
Protein, % TE	11.4	11.5	11.6	10-12
Lipids, % TE	51.1	50.0	54.4	45-60
omega-6 fatty acids, % TE	5.0	5.0	10.0	3-10
omega-3 fatty acids, % TE	4.0	3.0	1.0	0.3-2.5
Potassium, mg	1271.0	1271.0	1229.7	1,100-1,400
Calcium, mg	469.9	469.9	488.1	300-600
Phosphorus, mg	380.4	380.4	374.8	300-600
Magnesium, mg	85.3	85.3	80.7	80-140
Iron, mg	12.5	12.5	12.4	10-14
Zinc, mg	11.8	11.8	11.9	11-14
Copper, mg	1.8	1.8	1.8	1.4-1.8
Selenium, µg	31.6	31.6	31.4	20-40
Iodine, µg	79.7	79.7	79.7	70-140
Vitamin A, mg RE	1.7	1.7	1.7	0.8-1.1
Thiamin, mg	0.7	0.7	0.7	≥ 0.5
Riboflavin, mg	4.2	4.2	4.1	≥ 1.6
Niacin, mg	5.6	5.6	5.6	≥ 5
Pantothenic acid, mg	4.2	4.2	4.1	≥ 3
Vitamin B6, mg	0.7	0.7	0.7	≥ 0.6
Biotin, µg	65.5	65.5	65.5	≥ 60
Folate, µg	278.9	278.9	277.7	≥ 200
Vitamin B12, µg	2.8	2.8	2.9	≥ 1.6
Vitamin C, mg	54.2	54.2	54.5	≥ 50
Vitamin D, µg	15.9	15.9	15.9	15-20
Vitamin E, mg	20.0	20.0	20.0	≥ 20
Vitamin K1, µg	20.7	20.7	20.7	15-30

[1]Joint Statement on Community-Based Management of Severe Acute Malnutrition by the World Health Organization, the World Food Programme, the United Nations System Standing Committee on Nutrition and the United Nations Children's Fund, 2007. DHA-HO-RUTF, docosahexaenoic acid added to ready-to-use therapeutic food made with high oleic acid peanuts; HO-RUTF, RUTF made with high oleic acid peanuts; RE, retinol equivalents; S-RUTF, standard RUTF; TE, total energy.

Online Supporting Material: Low linoleic acid foods with added DHA given to Malawian children with severe acute malnutrition improve cognition: a randomized, triple blinded, controlled clinical trial. Stephenson et al

Supplementary Table 2. Amino acids provided by the study ready-to-use therapeutic foods[1]

Amino Acid	DHA-HO-RUTF	HO-RUTF	S-RUTF	Requirement for catch-up weight gain of 10 g/kg/d[*]
Histidine, mg	26	26	26	23
Isoleucine, mg	49	49	51	34
Leucine, mg	83	83	85	70
Lysine, mg	61	61	63	65
Sulfur amino acids[†], mg	31	31	31	31
Phenylalanine + tyrosine, mg	94	94	96	63
Threonine, mg	41	41	41	37
Tryptophan, mg	12	12	12	10
Valine, mg	56	56	57	46

[1] Amino acid expressed mg /g protein. DHA-HO-RUTF, docosahexaenoic acid added to ready-to-use therapeutic food made with high oleic acid peanuts; HO-RUTF, RUTF made with high oleic acid peanuts; S-RUTF, standard RUTF.

[*] Target protein requirement to achieve a catch-up weight gain of 10 g/kg/d was calculated by considering a compositional weight gain of 73:27, lean/fat equivalent to 14% protein and 27% fat, 14% deposited tissue adjusted for a 70% efficiency of utilization, and a safe level of maintenance at 1.24 x 0.66 g/kg/d = 0.82, with 0.66 g/kg/d being the adult maintenance protein needs (http://www.fao.org/3/CA2487EN/ca2487en.pdf).

[†] Sulfur amino acids = (methionine + cysteine)

Online Supporting Material: Low linoleic acid foods with added DHA given to Malawian children with severe acute malnutrition improve cognition: a randomized, triple blinded, controlled clinical trial. Stephenson et al

Supplementary Table 3. Enrollment characteristics, nutritional outcomes, and characteristics at time of testing of the children who underwent Malawi Developmental Assessment Tool testing[1]

	DHA-HO-RUTF (N = 332)	HO-RUTF (N = 312)	S-RUTF (N = 342)
Enrollment and nutritional outcomes			
Age, mo, median (IQR)	11.1 (7.3 - 16.8)	10.2 (7.1 - 18.0)	10.7 (7.7 – 18.0)
Female sex, n (%)	203 (60.2)	182 (58.3)	212 (61.1)
Edematous, n (%)	110 (32.6)	93 (29.8)	101 (29.1)
Mid-upper arm circumference, cm	11.6 ± 1.1	11.4 ± 1.1	11.5 ± 1.0
MUAC < 11.5 cm, n (%)	231 (68.5)	212 (67.9)	246 (70.9)
Weight-for-height z-score	-1.7 ± 1.1	-1.8 ± 1.1	-1.9 ± 1.0
WHZ < -3, n (%)	45 (13.4)	51 (16.3)	53 (15.3)
Height-for-age z-score	-3.2 ± 1.3	-3.3 ± 1.5	-3.3 ± 1.4
HAZ ≤ -2, n (%)	288 (85.5)	266 (85.3)	294 (84.7)
HAZ ≤ -3, n (%)	193 (57.3)	181 (58.0)	185 (53.3)
Recovered, no. (%)	260 (77.2)	243 (77.9)	271 (78.1)
Improved to MAM, no. (%)	59 (17.5)	52 (16.7)	52 (15.0)
Remained SAM, no. (%)	18 (5.3)	17 (5.4)	24 (6.9)
Duration of treatment, weeks, median (IQR)	6 (4 - 12)	6 (4 - 12)	6 (4 - 12)
Demographics at time of Malawi Developmental Assessment Tool test			
Age at MDAT, mo, median (IQR)	18.9 (15.5 – 24.4)	17.7 (15.3 - 25.4)	18.9 (15.6 – 25.4)
Time between outcome and MDAT, mo	5.8± 0.5	5.8 ± 0.5	5.9 ± 0.6
Primary caregiver mother, no. (%)	311 (92.3)	289 (92.6)	324 (93.4)
Primary caregiver at least some primary school education, no. (%)	248 (73.6)	232 (74.4)	270 (77.8)
Secondary caregiver at least some primary school education, no. (%)	233 (69.8)	218 (71.5)	257 (75.6)
Number of siblings, median (IQR)	2 (1 - 3)	2 (1 - 4)	2 (0 - 4)

[1] Plus-minus values are means ± SD. DHA-HO-RUTF, docosahexaenoic acid added to ready-to-use therapeutic food made with high oleic acid peanuts; HAZ, height-for-age z-score; HO-RUTF, RUTF with high oleic acid peanuts; MAM, moderate acute malnutrition; MDAT, Malawi Developmental Assessment Tool; MUAC, mid-upper arm circumference; SAM, severe acute malnutrition; WHZ, weight-for-height z-score.

Summary
Median age at time of MDAT was similar between groups, and mean duration between SAM outcome and MDAT was similar, 5.8 – 5.9 months. 10 (1.0%) were excluded from analysis, 9 participants due to outlier MDAT global z-scores < -5 and 1 who was unable to be scored for > 2 domains. Several children were unable to be scored for one or more sub-domains due to inadequate item completion: one child had no gross motor score (DHA-HO-RUTF), twenty did not have fine motor scores (nine DHA-HO-RUTF, six HO-RUTF, five S-RUTF), one did not have a language score (DHA-HO-RUTF), and one did not have a social score (HO-RUTF).

Online Supporting Material: Low linoleic acid foods with added DHA given to Malawian children with severe acute malnutrition improve cognition: a randomized, triple blinded, controlled clinical trial. Stephenson et al

Supplementary Table 4. Enrollment characteristics, nutritional outcomes, and characteristics at time of assessment of the children who underwent modified Willatts problem solving assessments[1]

	DHA-HO-RUTF (N = 354)	HO-RUTF (N = 328)	S-RUTF (N = 361)
Enrollment characteristics and nutritional outcomes			
Age, mo, median (IQR)	10.5 (7.7 – 15.1)	10.0 (7.4 – 14.8)	10.6 (7.4 – 14.2)
Female sex, n (%)	212 (59.9)	183 (55.8)	219 (60.7)
Edematous, n (%)	102 (28.8)	98 (29.9)	91 (25.2)
Mid-upper arm circumference, cm	11.4 ± 1.0	11.4 ± 1.0	11.3 ± 0.8
MUAC < 11.5, n (%)	254 (71.8)	235 (71.6)	274 (75.9)
Weight-for-height z-score	-1.9 ± 1.1	-1.9 ± 1.1	-2.0 ± 1.0
WHZ < -3, n (%)	60 (16.9)	46 (14.0)	59 (16.3)
Height-for-age z-score	-3.1 ± 1.4	-3.3 ± 1.5	-3.2 ± 1.4
HAZ ≤ -2, n (%)	283 (79.9)	277 (84.5)	311 (86.1)
HAZ ≤ -3, n (%)	185 (52.3)	183 (55.8)	201 (55.7)
Recovered, no. (%)	268 (75.7)	252 (76.8)	267 (74.0)
Improved to MAM, no. (%)	66 (18.7)	52 (15.9)	68 (18.8)
Remained SAM, no. (%)	20 (5.6)	24 (7.3)	26 (7.2)
Duration of treatment, weeks, median (IQR)	6 (4 - 12)	6 (4 - 12)	6 (4 - 12)
Demographics at time of problem solving assessment			
Age at PSA, mo, median (IQR)	12.2 (9.8 – 16.9)	12.0 (9.6 – 16.4)	12.1 (9.6 – 15.7)
Time between outcome and PSA, weeks	0.5 ± 1.1	0.6 ± 1.1	0.6 ± 1.1
Primary caregiver mother, no./total no. (%)	325/351 (92.6)	305/328 (93.0)	336/359 (93.6)
Number of siblings, median (IQR)	2 (0 - 3)	2 (0 - 4)	2 (1 - 4)

[1]Plus-minus values are means ± SD. HAZ, height-for-age z-score; MAM, moderate acute malnutrition; MDAT, Malawi Developmental Assessment Test; MUAC, mid-upper arm circumference; SAM, severe acute malnutrition; WHZ, weight-for-height z-score.

Summary
Median age at time of problem solving assessment was similar between groups, as was mean time between SAM outcome and assessment, 0.5 – 0.6 weeks. A minority of children were unable to engage in each problem sufficiently for scoring: for problems 1 and 2, 14-19% had no score, while for problem 3, 27-34% had no score (Figure 3).

Online Supporting Material: Low linoleic acid foods with added DHA given to Malawian children with severe acute malnutrition improve cognition: a randomized, triple blinded, controlled clinical trial. Stephenson et al

Supplementary Table 5. Enrollment characteristics of children enrolled outside of the three time periods of study food stock-out[1]

	DHA-HO-RUTF (N = 774)	HO-RUTF (N = 764)	S-RUTF (N = 756)
Female sex, no. (%)	434 (56.1)	417 (54.6)	435 (57.5)
Age, mo, median (IQR)	11.8 (7.9 – 20.3)	12.1 (7.7 - 21.1)	12.0 (7.8 - 21.1)
Edematous, no. (%)	257 (33.2)	263 (34.4)	230 (30.4)
Mid-upper-arm circumference, cm	11.5 ± 1.2	11.6 ± 1.2	11.6 ± 1.2
MUAC < 11.5 cm, no. (%)	516 (66.7)	486 (63.6)	505 (66.8)
Weight-for-height z-score	-1.9 ± 1.2	-1.9 ± 1.3	-2.0 ± 1.2
WHZ ≤ -3, no. (%)	156 (20.2)	161 (21.1)	165 (21.8)
Height-for-age z-score	-3.3 ± 1.5	-3.3 ± 1.5	-3.2 ± 1.4
HAZ ≤ -2, no./total no. (%)	639/774 (82.6)	645/764 (84.4)	637/756 (84.3)
Fever in past 2 weeks, no./total no. (%)	441/770 (57.0)	457/763 (59.8)	464/753 (61.4)
Diarrhea in past 2 weeks, no./total no. (%)	428/770 (55.3)	420/763 (55.0)	405/751 (53.6)
Child breastfed, no./total no. (%)	502/773 (64.9)	506/762 (66.4)	498/753 (66.1)
HIV-seropositive, no./total no. tested (%)	18/254 (7.1)	22/271 (8.1)	20/262 (7.6)
Mother alive, no./total no. (%)	748/772 (96.9)	734/764 (96.1)	737/753 (97.9)
Number of siblings, median (IQR)	2 (0-3)	2 (1-3)	2 (0-3)
Thatch roof, no./total no. (%)	583/769 (75.8)	584/763 (76.5)	574/750 (76.5)
Radio in home, no./total no. (%)	169/772 (21.9)	180/758 (23.7)	146/754 (19.4)
Clean water source, no./total no. (%)	728/772 (94.3)	704/762 (92.4)	702/755 (93.0)

[1] Plus-minus values are means ± SD. DHA-HO-RUTF, docosahexaenoic acid added to ready-to-use therapeutic food made with high-oleic acid peanuts; HAZ, height-for-age z-score; HIV, human immunodeficiency virus; HO-RUTF, RUTF made with high oleic acid peanuts; MUAC, mid-upper arm circumference; WHZ, weight-for-height z-score.

Online Supporting Material: Low linoleic acid foods with added DHA given to Malawian children with severe acute malnutrition improve cognition: a randomized, triple blinded, controlled clinical trial. Stephenson et al

Supplementary Table 6. Cognitive, programmatic, and growth outcomes, and adverse events of children enrolled outside of the three time periods of study food stock-outs[1]

	DHA-HO-RUTF		HO-RUTF		S-RUTF		DHA-HO-RUTF vs. S-RUTF Comparison[2]	HO-RUTF vs. S-RUTF Comparison[2]
	N		N		N			
Cognitive Outcomes								
MDAT z-scores								
Global	312	-0.65 ± 1.17	312	-0.77 ± 1.25	288	-0.85 ± 1.26	0.19 (0.00, 0.39)	0.07 (-0.13, 0.28)
Gross motor domain	311	-1.07 ± 1.66	312	-1.32 ± 1.66	288	-1.34 ± 1.77	0.27 (0.00, 0.54)	0.02 (-0.26, 0.30)
Fine motor domain	303	-1.77 ± 1.70	306	-1.81 ± 1.81	283	-1.87 ± 1.83	0.10 (-0.19, 0.39)	0.06 (-0.24, 0.35)
Language domain	311	-0.69 ± 1.33	312	-0.93 ± 1.53	288	-0.89 ± 1.41	0.20 (-0.02, 0.42)	-0.03 (-0.27, 0.21)
Social domain	312	0.42 ± 1.00	311	0.51 ± 0.98	288	0.27 ± 1.06	0.15 (-0.02, 0.31)	0.24 (0.08, 0.41)
PSA intention scores								
Problem 1, no. (%) with perfect score	280	86 (31)	265	83 (31)	243	75 (31)	0.95 (0.70, 1.30)[3]	0.85 (0.62, 1.16)[3]
Problem 2, no. (%) with perfect score	275	157 (57)	265	145 (55)	244	141 (58)	0.92 (0.65, 1.29)[3]	0.88 (0.63, 1.23)[3]
Problem 3, no. (%) with perfect score	224	46 (21)	226	52 (23)	200	45 (23)	0.87 (0.62, 1.23)[3]	1.04 (0.74, 1.45)[3]
Eye-tracking								
Infant Oriented with Attention response time, ms	205	430 ± 107	211	434 ± 107	209	417 ± 97	13 (-12, 37)	17 (-3, 37)
Visual paired comparison novelty preference score	224	0.60 ± 0.1	226	0.58 ± 0.1	237	0.59 ± 0.1	0.01 (-0.01, 0.03)	-0.01 (-0.02, 0.01)
Mean fixation duration, ms	232	331 ± 152	232	354 ± 146	243	348 ± 165	-16 (-50, 18)	7 (-28, 41)
Programmatic Outcomes								
Recovered, no. (%)	774	551 (71.2)	764	570 (74.6)	756	558 (73.8)	-2.6 (-7.1, 1.9)	0.8 (-3.6, 5.2)
Remained malnourished, no. (%)	774	162 (20.9)	764	145 (19.0)	756	161 (21.3)	-0.4 (-4.5, 3.7)	-2.3 (-6.3, 1.7)
Improved to moderate acute malnutrition, no. (%)	774	117 (15.1)	764	100 (13.1)	756	111 (14.7)	0.4 (-3.2, 4.0)	-1.6 (-5.1, 1.9)
Remained severely malnourished, no. (%)	774	45 (5.8)	764	45 (5.9)	756	50 (6.6)	-0.8 (-3.2, 1.6)	-0.7 (-3.1, 1.7)
Died, no. (%)	774	19 (2.5)	764	16 (2.1)	756	11 (1.5)	1.0 (-0.4, 2.4)	0.6 (-0.7, 1.9)
Defaulted, no. (%)	774	42 (5.4)	764	33 (4.3)	756	25 (3.3)		
Anthropometric Outcomes								
Rate of weight gain, g/kg/day	751	3.7 ± 4.0	745	3.8 ± 3.8	740	3.9 ± 3.6	-0.3 (-0.7, 0.1)	-0.2 (-0.5, 0.2)
Rate of mid-upper arm circumference gain, mm/day	751	0.27 ± 0.27	745	0.25 ± 0.26	740	0.28 ± 0.27	-0.01 (-0.04, 0.02)	-0.02 (-0.05, 0.01)
Rate of length gain, mm/day	751	0.37 ± 0.36	745	0.35 ± 0.39	738	0.35 ± 0.33	0.02 (-0.01, 0.06)	0.00 (-0.04, 0.04)
Adverse events, first 2 weeks of intervention								
Fever, no. (%)	771	202 (26)	763	185 (24)	755	227 (30)	-4.0 (-8.5, 0.5)	-6.0 (-10.5, -1.5)
Diarrhea, no. (%)	772	236 (31)	763	214 (28)	755	245 (32)	-1.0 (-5.7, 3.7)	-4.0 (-8.6, 0.6)
Eating well, no. (%)	773	738 (95)	761	730 (96)	751	726 (97)	-2.0 (-4.0, 0.0)	-1.0 (-2.9, 0.9)

[1] Plus-minus values are means ± SD. Significance testing was performed for primary outcomes only. Malawi Developmental Assessment Tool and modified Willatts Problem Solving Assessment. DHA-HO-RUTF, docosahexaenoic acid added to ready-to-use therapeutic food made with heigh-oleic acid peanuts; HO-RUTF, high-oleic acid ready-to-use therapeutic food; S-RUTF, standard ready-to-use therapeutic food.
[2] All values are differences with 95% confidence intervals unless otherwise noted.
[3] This value is the odds ratio with 95% confidence interval.

Online Supporting Material: Low linoleic acid foods with added DHA given to Malawian children with severe acute malnutrition improve cognition: a randomized, triple blinded, controlled clinical trial. Stephenson et al

Supplementary Table 7. The effects of derived variables for exposure to docosahexaenoic acid-containing ready-to-use therapeutic food (DHA) or RUTF produced with high oleic acid peanuts (HO) on MDAT global-score and modified Willatts problems solving assessment intention scores.

Outcome	N	DHA vs. no DHA Comparison (95% CI)[1]	HO vs. no HO Comparison (95% CI)[1]
MDAT			
Global z-score	986	0.11 (-0.8, 0.30)[2]	0.08 (-0.11, 0.27)[2]
Problem solving assessment			
Problem 1 intention score	871	1.11 (0.83, 1.49)	0.89 (0.66, 1.19)
Problem 2 intention score	870	1.10 (0.80, 1.51)	0.88 (0.64, 1.21)
Problem 3 intention score	715	0.91 (0.66, 1.24)	1.01 (0.74, 1.38)

Derived variables were produced by dummy coding for presence or absence of each exposure. Effects of docosahexaenoic acid (DHA) in RUTF and use high oleic peanuts (HO) in RUTF on MDAT global z-score were assessed using linear regression. Effects of DHA in RUTF and use of HO peanuts in RUTF on modified Willatts problems solving assessment intention scores were assessed using ordinal logistic regression. DHA, docosahexaenoic acid; HO, high oleic acid peanuts used to produce ready-to-use therapeutic food; MDAT, Malawi Developmental Assessment Tool; RUTF, ready-to-use therapeutic food.
[1] All values are odds ratios with 95% confidence intervals unless otherwise indicated.
[2] This value is the beta coefficient with 95% confidence interval.

Online Supporting Material: Low linoleic acid foods with added DHA given to Malawian children with severe acute malnutrition improve cognition: a randomized, triple blinded, controlled clinical trial. Stephenson et al

Supplementary Table 8. Fatty acid concentrations in plasma from SAM children fed different PUFA diets[1]

Common name	Shorthand Designation	DHA-HO-RUTF n = 208	HO-RUTF n = 189	S-RUTF n = 162
Myristic Acid	14:0	0.76 (0.45-1.14)	0.81 (0.45-1.19)	0.67 (0.39-1.08)
Palmitic Acid	16:0	28.08 (26.37-29.81)	28.18 (26.39-29.91)	27.91 (26.47-29.93)
Hypogeic Acid	16:1 n-9	0.09 (0.07-0.12)	0.10 (0.07-0.14)	0.09 (0.07-0.13)
Palmitoleic Acid	16:1 n-7	0.32 (0.21-0.54)	0.33 (0.22-0.57)	0.35 (0.21-0.52)
Stearic Acid	18:0	18.05 (15.17-24.30)	18.75 (15.27-24.54)	17.17 (14.49-21.04)[2]
Oleic Acid	18:1 n-9	13.07 (10.13-16.81)	11.98 (9.77-15.99)	12.78 (10.31-16.63)
Vaccenic Acid	18:1 n-7	1.22 (0.98-1.47)	1.17 (0.96-1.48)	1.29 (0.99-1.51)
Linoleic Acid	18:2 n-6	18.06 (15.70-20.48)	18.52 (16.19-20.9)	18.98 (17.15-20.91)
γ-Linoleic Acid	18:3 n-6	0.04 (0.03-0.05)	0.04 (0.03-0.06)	0.04 (0.03-0.06)
α-Linolenic Acid	18:3 n-3	0.36 (0.23-0.55)	0.32 (0.22-0.52)	0.20 (0.15-0.28)[2]
Arachidic Acid	20:0	0.23 (0.19-0.27)	0.24 (0.20-0.29)	0.23 (0.19-0.29)
Eicosenoic Acid	20:1 n-9	0.15 (0.11-0.20)	0.15 (0.11-0.19)	0.17 (0.13-0.21)
Eicosadienioic Acid	20:2 n-6	0.32 (0.25-0.38)	0.33 (0.26-0.40)	0.32 (0.26-0.38
Mead Acid	20:3 n-9	0.04 (0.03-0.08)	0.05 (0.03-0.10)	0.06 (0.03-0.11)
Sciadonic acid	5,11,14-20:3	0.08 (0.07-0.11)	0.10 (0.08-0.13)	0.11 (0.08-0.14)
Dihomo-γ-linolenic Acid	8,11,14-20:3	1.59 (1.29-1.92)[2]	1.68 (1.32-2.08)[2]	1.77 (1.46-2.15)
Arachidonic acid	20:4 n-6	7.87 (5.65-9.50)	8.01 (6.20-9.99)	9.04 (7.50-10.67)[2]
Behenic Acid	22:0	0.32 (0.21-0.43)	0.31 (0.20-0.47)	0.36 (0.24-0.49)
Eicosapentaenoic acid EPA	20:5 n-3	0.37 (0.24-0.50)[2]	0.27 (0.20-0.41)[2]	0.18 (0.14-0.25)
Adrenic Acid	22:4 n-6	0.24 (0.17-0.31)	0.28 (0.20-0.39)	0.37 (0.25-0.47)[2]
Lignoceric Acid	24:0	0.22 (0.12-0.32)	0.20 (0.09-0.35)	0.26 (0.12-0.45)
Docosapentaenoic Acid	22:5 n-6	0.22 (0.17-0.29)	0.25 (0.18-0.32)	0.29 (0.20-0.40)
Nervonic Acid	24:1 n-9	0.47 (0.28-0.65)	0.45 (0.23-0.62)	0.52 (0.32-0.67)
Docosapentaenoic Acid	22:5 n-3	0.47 (0.37-0.61)	0.54 (0.37-0.72)	0.45 (0.34-0.59)
Docosahexaenoic Acid (DHA)	22:6 n-3	3.57 (2.81-4.31)[2]	2.55 (1.84-3.51)	2.85 (2.03-3.58)

[1] Values expressed in %wt./total fatty acids as median (IQR)

[2] Values differ significantly from others in their row, as tested by Kruskal-Wallis Test.

Abbreviations: DHA-HO-RUTF, docosahexaenoic acid added to ready-to-use therapeutic food made with high oleic acid peanuts; HO-RUTF, RUTF made with high oleic acid peanuts; S-RUTF, standard RUTF.