Supplemental Table 1: Demographic characteristics and nutritional status of mothers less than 19 years presenting to Shabelle Health and Nutrition Center, Somalia – November 2019 to March 2020 (N=133)

	Pregnant Mothers[1]	Lactating Mothers[2]	Neither Pregnant nor Lactating Mothers[3]	All Mothers
	(15 – 18.9 years)			
N	31	5	97	133
Age (years)				
Median (IQR)	18 (18-18)	18 (18-18)	18 (18-18)	18 (18-18)
Range	17-18	18	15-18	15-18
Access to care				
Enrolled in antenatal care[4], n(%)	28 (90.3)	5 (100)	-	33 (91.7)
Nutritional Status				
MUAC[5] (cm), mean (SD)	24.6 (3.69)	23.1 (2.80)	24.1 (2.99)	24.2 (3.16)
Low Mother MUAC[5,6], n(%)	10 (32.3)	3 (60.0)	48 (51.1)	-
Body mass index for age z-score[7], mean (SD)	0.64 (0.99)	-0.14 (1.09)	-0.12 (1.34)	0.06 (1.29)
Body mass index for age z-score[7] < -2, n(%)	0 (0.00)	0 (0.00)	5 (5.20)	5 (3.80)
Body mass index for age z-score[7] < -3, n(%)	0 (0.00)	0 (0.00)	2 (0.02)	2 (0.02)
Parity, n(%)				
1-2 child	21 (67.7)	2 (40.0)	81 (83.5)	104 (78.2)
3-5 children	9 (29.0)	3 (60.0)	14 (14.4)	26 (19.5)
>5 children	1 (3.20)	0 (0.00)	2 (2.10)	3 (2.3)

Abbreviations: Mid-upper arm circumference (MUAC), kilograms (kg), meters (m), centimeters (cm), standard deviation (SD)

[1]Pregnant mothers defined as mothers that self-identified as pregnant. Pregnant mothers may have also been breastfeeding a child.

[2]Lactating mothers defined as non-pregnant mothers breastfeeding a child between the ages of 0-5 months. The child enrolled in the study was not necessarily the child who was breastfeeding.

[3]Neither pregnant nor lactating mothers defined as women who were neither pregnant nor lactating a child 0-5 months.

[4]Denominator of women in all mothers column only includes pregnant and lactating mothers (n=36)

[5]Due to missing MUAC data or MUAC out of range 3 mothers were excluded from this analysis. The sample for neither pregnant nor lactating mothers n=94.

[6]Low MUAC defined as <23 cm for pregnant and lactating mothers and ≤24 cm for neither pregnant nor lactating mothers.

[7]Due to missing weight or height information or BMI values out of range, 1 mother was excluded from this analysis. The sample for neither pregnant nor lactating mothers n=96.

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Supplemental Table 2: Model estimated differences in maternal BMI and MUAC by maternal parity, gestational status and age

Maternal Gestational Status	Maternal Parity Category	Model 1 – Model Estimated Maternal BMI based on child WHZ[1]			Model 2 - Model Estimated Maternal BMI based on child MUAC[1]			Model 3 - Model Estimated Maternal MUAC based on child MUAC[1]			Model 4 - Model Estimated Maternal MUAC based on child WHZ[1]		
		Age of mother (years)			Age of mother (years)			Age of mother (years)			Age of mother (years)		
		22	27	30	22	27	30	22	27	30	22	27	30
Neither pregnant nor lactating[2]	1 to 2	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
	3 to 5	1.45	0.52	0.58	1.56	1.92	2.13	0.67	0.83	0.92	1.12	1.37	1.52
	6 to 15	2.04	0.73	0.81	2.14	2.62	2.92	1.00	1.22	1.36	1.47	1.81	2.01
Lactating[3]	1 to 2	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
	3 to 5	2.36	1.64	1.82	2.42	2.96	3.29	1.31	1.61	1.79	1.76	2.16	2.40
	6 to 15	3.13	1.94	2.15	2.96	3.63	4.03	1.58	1.95	2.16	2.55	3.14	3.48
Pregnant[4]	1 to 2	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
	3 to 5	1.38	0.29	0.33	1.13	1.39	1.54	0.59	0.72	0.80	0.96	1.18	1.31
	6 to 15	2.35	3.35	4.35	2.22	2.73	3.03	1.42	1.74	1.93	1.80	2.21	2.46

Abbreviations: Ref = Reference, BMI=Body Mass Index, MUAC = Mid-upper arm circumference, WHZ = weight for height z-score

[1]Models adjusted for maternal parity, gestational status and age in addition to child nutritional indicator.

[2]Neither pregnant nor lactating mothers defined as women who were neither pregnant nor lactating a child 0-5 months.

[3]Lactating mothers defined as non-pregnant mothers breastfeeding a child between the ages of 0-5 months. The child enrolled in the study was not necessarily the child who was breastfeeding.

[4]Pregnant mothers defined as mothers that self-identified as pregnant. Pregnant mothers may have also been breastfeeding a child.

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Supplemental Table 3: Model estimated differences in maternal BMI and MUAC by maternal parity, gestational status and age

Maternal Gestational Status[2]	Maternal Parity Category	Model 1 – Model Estimated Maternal BMI based on child WHZ[1]			Model 2 - Model Estimated Maternal BMI based on child MUAC[1]			Model 3 - Model Estimated Maternal MUAC based on child MUAC[1]			Model 4 - Model Estimated Maternal MUAC based on child WHZ[1]		
		Age of mother (years)			Age of mother (years)			Age of mother (years)			Age of mother (years)		
		22	27	30	22	27	30	22	27	30	22	27	30
Neither	1 to 2 children	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Lactating		-1.33	-2.89	-3.21	-1.37	-1.68	-1.87	-0.67	-0.82	-0.91	-1.02	-1.25	-1.38
Pregnant		0.24	0.95	1.06	0.49	0.60	0.67	-0.46	-0.56	-0.63	-0.57	-0.70	-0.77
Neither	3 to 5 children	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Lactating		-0.43	-1.78	-1.98	-0.52	-0.64	-0.71	-0.03	-0.04	-0.04	-0.37	-0.46	-0.51
Pregnant		0.17	0.72	0.80	0.06	0.07	0.08	-0.55	-0.67	-0.74	-0.72	-0.88	-0.98
Neither	6 to 15 children	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Lactating		-0.24	-1.69	-1.88	-0.55	-0.68	-0.75	-0.08	-0.10	-0.11	0.06	0.08	0.09
Pregnant		0.58	1.23	1.37	0.57	0.70	0.78	-0.04	-0.05	-0.05	-0.24	-0.29	-0.33

Abbreviations: Ref = Reference, BMI=Body Mass Index, MUAC = Mid-upper arm circumference, WHZ = weight for height z-score
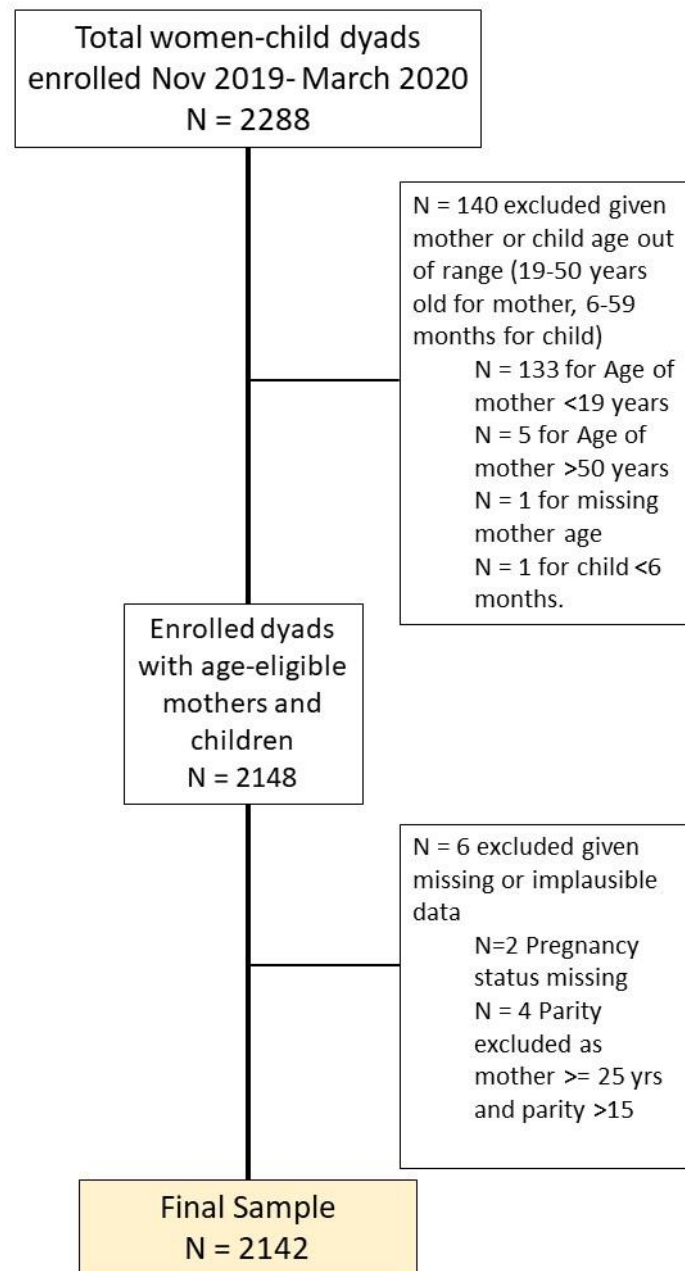[1]Models adjusted for maternal parity, gestational status and age in addition to child nutritional indicator.
[2]Neither pregnant nor lactating mothers defined as women who were neither pregnant nor lactating a child 0-5 months.
[3]Lactating mothers defined as non-pregnant mothers breastfeeding a child between the ages of 0-5 months. The child enrolled in the study was not necessarily the child who was breastfeeding.
[4]Pregnant mothers defined as mothers that self-identified as pregnant. Pregnant mothers may have also been breastfeeding a child.

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Supplemental Figure 1: Flowchart showing exclusion criteria for mother-child dyads during statistical analyses

Total women-child dyads enrolled Nov 2019- March 2020
N = 2288

N = 140 excluded given mother or child age out of range (19-50 years old for mother, 6-59 months for child)
  N = 133 for Age of mother <19 years
  N = 5 for Age of mother >50 years
  N = 1 for missing mother age
  N = 1 for child <6 months.

Enrolled dyads with age-eligible mothers and children
N = 2148

N = 6 excluded given missing or implausible data
  N=2 Pregnancy status missing
  N = 4 Parity excluded as mother >= 25 yrs and parity >15

Final Sample
N = 2142

Final sample – 98.9% (2119/2142) subset with complete data on maternal BMI
Final sample – 96.4% (2064/2142) subset with complete data on maternal MUAC
Final sample – 98.3% (2106/2142) subset with complete data on WHZ
Final sample – 99.9% (2140/2142) subset with complete data on child MUAC

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