



Supplementary Figure 1. CONSORT diagram for Women First Maternal Preconception Nutrition Trial, including participants from Guatemala, India, and Pakistan. Overall screening, random assignment, gestational age availability and obtainment of primary outcome by treatment arm.

¹Percentage of those randomly assigned. Excludes women who became pregnant <3 mo into the study. The women who had eligible pregnancies may have had delivery data obtained or they may have exited the study before delivery.

²GA at birth is defined as the age at the time of the ultrasound based on the ultrasound plus time until birth if the ultrasound was done between 6 wk +0 d and 13 wk +6 d and the GA at birth was between 24 wk +0 d and 42 wk +6 d. If the ultrasound was not conducted during the GA previously mentioned, then the GA at birth is missing.

³Primary outcome was obtained for live newborns with 3 length measurements taken within 48 h of delivery. Among women, primary outcome obtained from ≥ 1 infants of the woman.

CONSORT, Consolidated Standards of Reporting Trials; GA, gestational age; MTP, medical termination of pregnancy.

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Supplemental Table 1: Descriptive subgroup analysis by parity and body mass index (BMI)

Outcome Subgroup	Arm 1		Arm 2		Arm 3		Arm 1 vs. 3	Arm 2 vs. 3	Arm 1 vs. 2
	N	Mean \pm SD	N	Mean \pm SD	N	Mean \pm SD	P-value	P-value	P-value
Length-for-age Z-score									
Parity = 0: Normal/High BMI	77	-0.74 \pm 1.06	63	-0.82 \pm 1.20	56	-1.11 \pm 0.99	0.057	0.149	0.680
Parity = 0: Low BMI ¹	46	-0.68 \pm 1.00	34	-1.00 \pm 1.15	28	-1.62 \pm 1.19	< 0.001	0.027	0.205
Parity \geq 0: Normal/High BMI	287	-0.64 \pm 0.97	323	-0.60 \pm 1.00	290	-0.77 \pm 0.98	0.111	0.027	0.566
Parity \geq 0: Low BMI	79	-0.81 \pm 0.86	95	-0.82 \pm 1.09	85	-0.87 \pm 1.09	0.699	0.751	0.931
Weight-for-age Z-score									
Parity = 0: Normal/High BMI	77	-1.01 \pm 1.00	63	-1.24 \pm 1.07	56	-1.33 \pm 0.93	0.077	0.647	0.181
Parity = 0: Low BMI	46	-1.16 \pm 1.00	34	-1.63 \pm 0.89	28	-1.85 \pm 0.80	0.002	0.345	0.026
Parity \geq 0: Normal/High BMI	287	-0.77 \pm 0.89	323	-0.75 \pm 0.90	290	-0.90 \pm 0.83	0.064	0.029	0.779
Parity \geq 0: Low BMI	79	-1.12 \pm 0.88	96	-1.21 \pm 0.76	85	-1.16 \pm 1.09	0.804	0.701	0.528
Weight to length ratio-for age Z-score									
Parity = 0: Normal/High BMI	77	-1.45 \pm 1.47	62	-1.74 \pm 1.39	55	-1.81 \pm 1.41	0.159	0.796	0.239
Parity = 0: Low BMI	44	-1.62 \pm 1.37	34	-2.44 \pm 1.20	27	-2.43 \pm 1.25	0.011	0.979	0.006
Parity \geq 0: Normal/High BMI	286	-1.03 \pm 1.29	321	-0.98 \pm 1.25	288	-1.20 \pm 1.14	0.096	0.033	0.676
Parity \geq 0: Low BMI	77	-1.51 \pm 1.24	96	-1.73 \pm 1.10	85	-1.65 \pm 1.56	0.493	0.690	0.275

For each subgroup, treatment arms were compared within a linear regression model, using contrast statements.

¹Low BMI defined as < 18.5 kg/m².

Online Supporting Material

Supplemental Table 2. Regression results of neonatal anthropometry by newborn sex: combined sites

	Arm 1	Arm 2	Arm 3	Sex x Arm	Arm 1 v Arm 3		Arm 2 v Arm 3		Arm 1 v Arm 2	
Outcome	Adjusted Mean (95% CI)	Adjusted Mean (95% CI)	Adjusted Mean (95% CI)	Interaction <i>P</i> -value	Adjusted Mean Difference (95% CI)	<i>P</i> -Value	Adjusted Mean Difference (95% CI)	<i>P</i> -Value	Adjusted Mean Difference (95% CI)	<i>P</i> -Value
Length-for-age Z-score										
Female	-0.78 (-0.92, -0.63)	-0.88 (-1.02, -0.74)	-0.95 (-1.10, -0.80)	0.071	0.17 (-0.01, 0.35)	0.066	0.06 (-0.12, 0.24)	0.498	0.11 (-0.07, 0.28)	0.223
Male	-0.67 (-0.82, -0.53)	-0.60 (-0.74, -0.45)	-0.95 (-1.10, -0.80)		0.28 (0.09, 0.46)	0.003	0.35 (0.17, 0.54)	< 0.001	-0.08 (-0.26, 0.10)	0.386
Weight-for-age Z-score										
Female	-0.98 (-1.10, -0.85)	-1.14 (-1.26, -1.02)	-1.12 (-1.25, -0.99)	0.028	0.14 (-0.02, 0.30)	0.086	-0.03 (-0.18, 0.13)	0.757	0.17 (0.01, 0.32)	0.035
Male	-0.91 (-1.03, -0.78)	-0.89 (-1.01, -0.76)	-1.17 (-1.30, -1.04)		0.26 (0.10, 0.43)	0.002	0.28 (0.12, 0.44)	0.001	-0.02 (-0.18, 0.14)	0.815
Weight to length ratio-for age Z-score										
Female	-1.33 (-1.50, -1.15)	-1.56 (-1.73, -1.38)	-1.51 (-1.70, -1.32)	0.052	0.18 (-0.05, 0.41)	0.117	-0.05 (-0.27, 0.18)	0.678	0.23 (0.01, 0.45)	0.039
Male	-1.25 (-1.43, -1.07)	-1.24 (-1.42, -1.06)	-1.59 (-1.78, -1.40)		0.34 (0.11, 0.57)	0.004	0.34 (0.12, 0.57)	0.003	-0.01 (-0.23, 0.22)	0.951

Regression model controls for site, study arm, parity, age < 20 years, anemia (hemoglobin < 12 mg/dL), low BMI (< 18.5 kg/m²), no formal education, newborn sex, and low household socioeconomic status (SES). The SES tally provides the number of indicators available from the following list: electricity, improved water source, sanitation, man-made flooring, improved cooking fuels, and household assets. Low SES is defined as having ≤ 2 SES indicators present. CI, confidence interval.