

Table S1. Maternal and infant variables of interest from cross-sectional survey and regression analysis.

Variables of interest	Stunting (n=70)	Normal (n=320)	Underweight (n=58)	Normal (n=332)	Univariable (p-value)		Adjusted OR, (95% CI); p-value		
					Stunting	Underweight	Stunting	Underweight	
Maternal^a									
Age (yrs), mean (SD)	27.3 (6.8)	27.0 (6.3)	28.6 (7.3)	26.7 (6.2)	0.707	0.036	1.01, (0.97, 1.06); 0.602	1.06, (1.01, 1.10); 0.019	
Ethnicity, n (%)									
Karen	47 (18.5)	207 (72.1)	35 (13.8)	219 (86.2)	0.401	0.612	Not included	Not included	
Burman	17 (14.9)	97 (85.1)	18 (15.8)	96 (84.2)					
Religion, n (%)									
Buddhist	55 (19.0)	235 (81.0)	48 (16.6)	242 (83.5)	0.283	0.102	Not included	Not included	
Christian	11 (14.1)	67 (85.9)	9 (11.5)	69 (88.5)					
Muslim	3 (14.3)	18 (85.7)	1 (4.76)	20 (95.2)					
Status, n (%)									
Refugee (Referent)	21 (12.7)	144 (87.3)	16 (9.7)	149 (90.3)	0.021	0.014	2.08, (1.12, 3.84); 0.020	2.26, (1.17, 4.36); 0.015	
Migrant	49 (21.8)	176 (78.2)	42 (18.7)	183 (81.3)					
Gravidity, n (%)									
Primigravida	18 (14.2)	109 (85.8)	15 (11.8)	112 (88.2)	0.177	0.238	Not included	Not included	
Multigravida	52 (19.8)	211 (80.2)	43 (16.4)	220 (83.7)					
Height (cm), mean (SD) ^b	148.0 (5.2)	151.6 (5.2)	149.1 (5.7)	151.3 (5.2)	<0.001	0.003	0.50, (0.38, 0.66); <0.001	0.64, (0.48, 0.85); 0.002	
BMI, n (%) ^c									
Low (< 18.5 kg/m ²)	10 (17.0)	49 (83.1)	11 (18.6)	48 (81.4)	0.974	0.434	Not included	Not included	
Normal (18.5-22.9 kg/m ²)	27 (15.7)	145 (84.3)	24 (14.0)	148 (86.0)					
High (≥ 23 kg/m ²)	12 (16.2)	62 (83.8)	8 (10.8)	66 (89.2)					
GWG, n (%) ^d									
< 10 kg	29 (21.0)	109 (79.0)	24 (17.4)	114 (82.6)	0.018	0.041	Not included	Not included	
10-15 kg	19 (14.8)	109 (85.2)	18 (14.1)	110 (85.9)					
≥ 15 kg	2 (5.0)	38 (95.0)	1 (2.5)	39 (97.5)					
Malaria in pregnancy, n (%)									
Yes	12 (34.3)	23 (65.7)	10 (28.6)	25 (71.4)	0.008	0.017	1.88, (0.79, 4.45); 0.151	1.91, (0.80, 4.57); 0.145	
No (Referent)	58 (16.3)	297 (83.7)	48 (13.5)	307 (86.5)					
Anemia, n (%)									
Yes	16 (19.5)	66 (80.5)	10 (12.2)	72 (87.8)	0.678	0.443	Not included	Not included	
No	54 (17.5)	254 (82.5)	48 (15.6)	260 (84.4)					
Literacy, n (%)									
Can read/write	41 (15.6)	222 (84.4)	33 (12.6)	230 (87.5)	0.081	0.063	0.98, (0.52, 1.85); 0.961	0.87, (0.47, 1.62); 0.668	
Cannot read/write (Referent)	29 (22.8)	98 (77.2)	25 (19.7)	102 (80.3)					
Smoker, n (%)									
Yes	11 (31.4)	24 (68.6)	7 (20.0)	28 (80.0)	0.029	0.371	1.80, (0.70, 4.62);	Not included	

Variables of interest	Stunting (n=70)	Normal (n=320)	Underweight (n=58)	Normal (n=332)	Univariable (p-value)		Adjusted OR, (95% CI); p-value	
					Stunting	Underweight	Stunting	Underweight
Yes	3 (16.7)	15 (83.3)	4 (22.2)	14 (77.8)	1.00	0.500	Not included	Not included
No	43 (17.9)	197 (82.1)	37 (15.4)	203 (84.6)				
Any protein fed, n (%)								
Yes	18 (19.8)	73 (80.2)	17 (18.7)	74 (81.3)	0.465	0.366	Not included	Not included
No	27 (16.2)	140 (83.8)	24 (14.4)	143 (85.6)				
Handwashing, n (%) ^c								
Yes	43 (14.7)	249 (85.3)	37 (12.7)	255 (87.3)	0.025	0.051	Not included	Not included
No (Referent)	19 (25.7)	55 (74.3)	16 (21.6)	58 (78.4)				
Safe stool disposal, n (%) ^c								
Yes (Referent)	25 (16.3)	128 (83.7)	15 (9.8)	138 (90.2)	0.806	0.044	Not included	Not included
No	35 (17.3)	167 (82.7)	35 (17.3)	167 (82.7)				

A total of 4 multivariable regression models were created: 1 model tested “maternal risk factors” and infant feeding and WASH behavioral factors and 1 model tested “infant risk factors”, with both models tested for association with stunting and underweight.

^aTotal number of observations included in multivariable regression for “maternal risk factors” for stunting (n=389) and underweight (n=381). Adjusted for maternal age.

^bUnit of 5 cm used for multivariable regression.

^cIncluded only those women with BMI measurement from first trimester (<14 weeks’ gestation), with low BMI (n=59), normal BMI (n=172), and high BMI (n=74), following WHO Asian BMI categories.³²

^dSignificant for trend. Included only those women with first weight measurement in first trimester (<14 weeks’ gestation, n=306). Excluded from multivariable regression for “maternal risk factors” due to limitation of sample size.

^eExcluded from multivariable regression analysis for “maternal risk factors” due to collinearity with status (refugee or migrant).

^fTotal number of observations included in multivariable regression for “infant risk factors” for stunting and underweight (n=381). Adjusted for length of gestation, infant sex and infant age.

^gExcluded from multivariable regression analysis for “infant risk factors” due to collinearity with small-for-gestational age.

^hA total of 9 data points missing (n=381).