

Supplement A

Supplemental Table 1: Associations between height-for-age, weight-for-age and weight-for-height Z-score categories and prevalent and incident malaria parasitemia outcomes in the following month, complete case analysis
Asembo Bay Cohort Study Nyanza Province, Kenya, 1992 – 1996, Children ages 0-30 months

Exposure	Prevalent Parasitemia		Incident Parasitemia	
	Afebrile Odds Ratio (95% CL)	Febrile Odds Ratio (95% CL)	Afebrile Odds Ratio (95% CL)	Febrile Odds Ratio (95% CL)
Height-for-Age Z-score				
Severe (≤ -3)	1.39 (1.05, 1.85)	0.89 (0.66, 1.20)	1.13 (0.73, 1.74)	0.86 (0.51, 1.45)
Moderate (> -3 and ≤ -2)	1.36 (1.05, 1.76)	1.01 (0.78, 1.31)	1.29 (0.90, 1.85)	1.34 (0.89, 1.20)
Mild (> -2 and < 0)	1.14 (0.92, 1.41)	0.86 (0.70, 1.06)	1.00 (0.74, 1.36)	0.90 (0.64, 1.26)
Not stunted - Referent (≥ 0)	1	1	1	1
Weight-for-Age Z-score				
Moderate (> -3 and ≤ -2)	1.27 (0.99, 1.64)	1.05 (0.80, 1.38)	1.39 (0.94, 2.05)	0.95 (0.61, 1.49)
Mild (> -2 and < 0)	1.21 (1.03, 1.42)	1.03 (0.87, 1.23)	1.22 (0.94, 1.57)	1.01 (0.77, 1.33)
Not Underweight - Referent (≥ 0 and < 1)	1	1	1	1
Mild Overweight (≥ 1)	0.97 (0.76, 1.22)	0.87 (0.69, 1.10)	1.21 (0.85, 1.72)	0.94 (0.66, 1.35)
Weight-for-Height Z-score				
Moderate (> -3 and ≤ -2)	0.96 (0.70, 1.31)	0.91 (0.64, 1.29)	0.86 (0.50, 1.47)	0.70 (0.36, 1.35)
Mild (> -2 and < 0)	0.95 (0.81, 1.10)	0.99 (0.84, 1.17)	1.01 (0.79, 1.29)	0.92 (0.70, 1.21)
Not Wasted - Referent (≥ 0 and < 2)	1	1	1	1
Overweight (≥ 2)	0.89 (0.73, 1.08)	0.80 (0.66, 0.98)	0.91 (0.69, 1.19)	0.91 (0.68, 1.23)

Odds ratios are from original data with observed outcomes analyzed with weighted GEE models. N = 1,118 for prevalence models. Incidence models were limited to observations with a negative malaria parasite film in the month before the outcome. N = 994.

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Supplemental Table 2: Associations between height-for-age, weight-for-age and weight-for-height Z-score categories and prevalent and incident malaria parasitemia outcomes in the following month, weighted analysis

Asembo Bay Cohort Study Nyanza Province, Kenya, 1992 – 1996, Children ages 0-30 months

Exposure	Prevalent Parasitemia		Incident Parasitemia	
	Afebrile Odds Ratio (95% CL)	Febrile Odds Ratio (95% CL)	Afebrile Odds Ratio (95% CL)	Febrile Odds Ratio (95% CL)
Height-for-Age Z-score				
Severe (≤ -3)	1.35 (1.03, 1.76)	0.89 (0.69, 1.14)	1.31 (0.93, 1.85)	0.92 (0.62, 1.35)
Moderate (> -3 and ≤ -2)	1.20 (0.95, 1.53)	0.94 (0.76, 1.17)	1.28 (0.95, 1.74)	1.17 (0.85, 1.62)
Mild (> -2 and < 0)	1.07 (0.89, 1.29)	0.90 (0.76, 1.06)	1.09 (0.86, 1.38)	0.94 (0.73, 1.22)
Not stunted - Referent (≥ 0)	1	1	1	1
Weight-for-Age Z-score				
Moderate (> -3 and ≤ -2)	1.35 (1.09, 1.66)	1.03 (0.84, 1.28)	1.43 (1.05, 1.94)	1.04 (0.74, 1.46)
Mild (> -2 and < 0)	1.16 (1.02, 1.33)	1.04 (0.91, 1.19)	1.20 (0.98, 1.46)	1.02 (0.83, 1.25)
Not Underweight - Referent (≥ 0 and < 1)	1	1	1	1
Mild Overweight (≥ 1)	1.00 (0.81, 1.22)	0.88 (0.72, 1.08)	1.14 (0.87, 1.50)	0.90 (0.68, 1.20)
Weight-for-Height Z-score				
Moderate (> -3 and ≤ -2)	1.06 (0.82, 1.38)	0.98 (0.74, 1.30)	0.98 (0.65, 1.48)	1.08 (0.68, 1.71)
Mild (> -2 and < 0)	0.98 (0.86, 1.12)	0.98 (0.85, 1.12)	1.02 (0.84, 1.24)	0.95 (0.76, 1.19)
Not Wasted - Referent (≥ 0 and < 2)	1	1	1	1
Overweight (≥ 2)	0.92 (0.79, 1.07)	0.86 (0.73, 1.01)	0.97 (0.79, 1.20)	0.95 (0.76, 1.20)

Odds ratios are from multiply imputed data with observed outcomes analyzed with weighted GEE models.

Prevalence models are shown in column 1, N = 1,119. Incidence models were limited to observations with a negative malaria parasite film in the month before the outcome. N = 995.