

SUPPLEMENTARY MATERIALS

Table S1. Test of interaction between country and treatment arm

	P-value		
	2014	2015	2016
Stunted	0.865	0.276	0.044
Wasted	0.322	0.796	0.449
Underweight	0.371	0.596	0.044
Anaemic	0.143	0.849	0.509
Malnourished	0.335	0.872	0.288

Table S2. Per protocol analysis Burkina Faso

Indicator	Post 2014 (N=2010)			Post 2015 (N=2000)			Post 2016 (N=1975)		
	SMC+P	SMC+AZ	PR (95% CI); p-value	SMC+P	SMC+AZ	PR (95% CI); p-value	SMC+P	SMC+AZ	PR (95% CI); p-value
Total children (n)	1009	1001		983	1017		973	1002	
	N (%)	N (%)		N (%)	N (%)		N (%)	N (%)	
Stunted	277 (28.6)	259 (26.9)	0.94 (0.81, 1.09); 0.40	218 (24.6)	223 (24.1)	0.98 (0.83, 1.15); 0.82	244 (28.1)	219 (24.0)	0.86 (0.73, 1.00); 0.055
Severely stunted	83 (8.6)	67 (7.0)	0.81 (0.59, 1.11); 0.19	61 (6.9)	66 (7.1)	1.04 (0.74, 1.45); 0.83	75 (8.6)	68 (7.5)	0.86 (0.63, 1.19); 0.37
Wasted	75 (7.8)	59 (6.2)	0.79 (0.57, 1.10); 0.17	120 (13.6)	117 (12.8)	0.94 (0.74, 1.19); 0.59	218 (24.2)	211 (22.9)	0.95 (0.80, 1.12); 0.53
Severely wasted	19 (2.0)	12 (1.3)	0.63 (0.31, 1.30); 0.21	50 (5.7)	55 (6.0)	1.06 (0.72, 1.54); 0.78	110 (12.2)	109 (11.8)	0.97 (0.75, 1.25); 0.81
Underweight	167 (17.1)	141 (14.6)	0.85 (0.69, 1.05); 0.13	168 (18.8)	176 (19.0)	1.01 (0.83, 1.22); 0.93	267 (29.1)	262 (27.8)	0.95 (0.82, 1.10); 0.52
Severely underweight	39 (4.0)	23 (2.4)	0.59 (0.36, 0.99); 0.044	52 (5.8)	52 (5.6)	0.96 (0.66, 1.41); 0.84	114 (12.4)	101 (10.7)	0.86 (0.67, 1.11); 0.25
Anaemic (Hb <11 g/dL)	456 (46.8)	390 (40.2)	0.86 (0.78, 0.95); 0.004	409 (45.7)	430 (46.0)	1.01 (0.91, 1.11); 0.88	468 (50.9)	458 (48.3)	0.95 (0.86, 1.04); 0.25
Severely anaemic (Hb <7 g/dL)	5 (0.5)	5 (0.5)	1.01 (0.29, 3.46); 0.99	9 (1.0)	9 (1.0)	0.96 (0.38, 2.40); 0.93	10 (1.1)	8 (0.8)	0.77 (0.31, 1.95); 0.59
Malnourished (MUAC<13.5cm)	40 (4.4)	39 (4.3)	0.98 (0.63, 1.51); 0.93	46 (5.6)	61 (7.2)	1.28 (0.88, 1.85); 0.20	72 (8.5)	62 (7.1)	0.83 (0.60, 1.15); 0.26
Severely malnourished (MUAC<12.5cm)	3 (0.3)	2 (0.2)	0.67 (0.11, 4.00); 0.66	9 (1.1)	6 (0.7)	0.64 (0.23, 1.80); 0.40	9 (1.1)	7 (0.8)	0.75 (0.28, 2.00); 0.57

Table S3. Per protocol analysis Mali

Indicator	Post 2014 (N=1999)			Post 2015 (N=1976)			Post 2016 (N=2006)		
	SMC+P	SMC+AZ	PR (95% CI); p-value	SMC+P	SMC+AZ	PR (95% CI); p-value	SMC+P	SMC+AZ	PR (95% CI); p-value
Total children (n)	988	1011		983	993		1009	997	
	N (%)	N (%)		N (%)	N (%)		N (%)	N (%)	
Stunted	312 (34.5)	305 (32.9)	0.95 (0.83, 1.09); 0.48	263 (30.6)	293 (32.6)	1.07 (0.92, 1.23); 0.38	238 (27.9)	233 (27.9)	1.00 (0.86, 1.17); 0.99
Severely stunted	132 (14.6)	128 (13.8)	0.95 (0.75, 1.20); 0.64	131 (15.2)	136 (15.1)	0.99 (0.78, 1.26); 0.96	73 (8.5)	77 (9.2)	1.08 (0.79, 1.47); 0.63
Wasted	236 (26.7)	237 (25.9)	0.97 (0.82, 1.15); 0.72	112 (13.2)	111 (12.5)	0.95 (0.74, 1.21); 0.68	62 (7.1)	63 (7.4)	1.04 (0.74, 1.46); 0.81
Severely wasted	120 (13.6)	122 (13.3)	0.98 (0.77, 1.25); 0.88	51 (6.0)	52 (5.9)	0.98 (0.67, 1.43); 0.90	14 (1.6)	24 (2.8)	1.76 (0.91, 3.40); 0.095
Underweight	299 (33.0)	298 (31.8)	0.96 (0.84, 1.11); 0.62	178 (20.7)	178 (19.8)	0.96 (0.79, 1.15); 0.63	136 (15.4)	160 (18.5)	1.20 (0.97, 1.48); 0.090
Severely underweight	136 (15.0)	131 (14.0)	0.93 (0.74, 1.18); 0.56	63 (7.3)	66 (7.3)	1.00 (0.72, 1.40); 0.99	19 (2.1)	37 (4.3)	1.99 (1.15, 3.43); 0.014
Anaemic (Hb <11 g/dL)	449 (48.9)	470 (49.7)	1.02 (0.93, 1.12); 0.73	377 (43.5)	365 (40.3)	0.93 (0.83, 1.03); 0.17	490 (55.2)	483 (55.6)	1.01 (0.93, 1.10); 0.85
Severely anaemic (Hb <7 g/dL)	11 (1.2)	3 (0.3)	0.26 (0.07, 0.94); 0.040	6 (0.7)	6 (0.7)	0.96 (0.28, 3.22); 0.94	7 (0.8)	3 (0.3)	0.44 (0.11, 1.69); 0.23
Malnourished (MUAC<13.5cm)	19 (2.2)	27 (3.0)	1.39 (0.78, 2.47); 0.26	45 (5.4)	33 (3.8)	0.70 (0.45, 1.09); 0.11	46 (5.5)	34 (4.1)	0.75 (0.49, 1.15); 0.19
Severely malnourished (MUAC<12.5cm)	4 (0.5)	10 (1.1)	2.45 (0.77, 7.75); 0.13	9 (1.1)	3 (0.3)	0.32 (0.09, 1.17); 0.085	5 (0.6)	4 (0.5)	0.81 (0.22, 2.99); 0.75

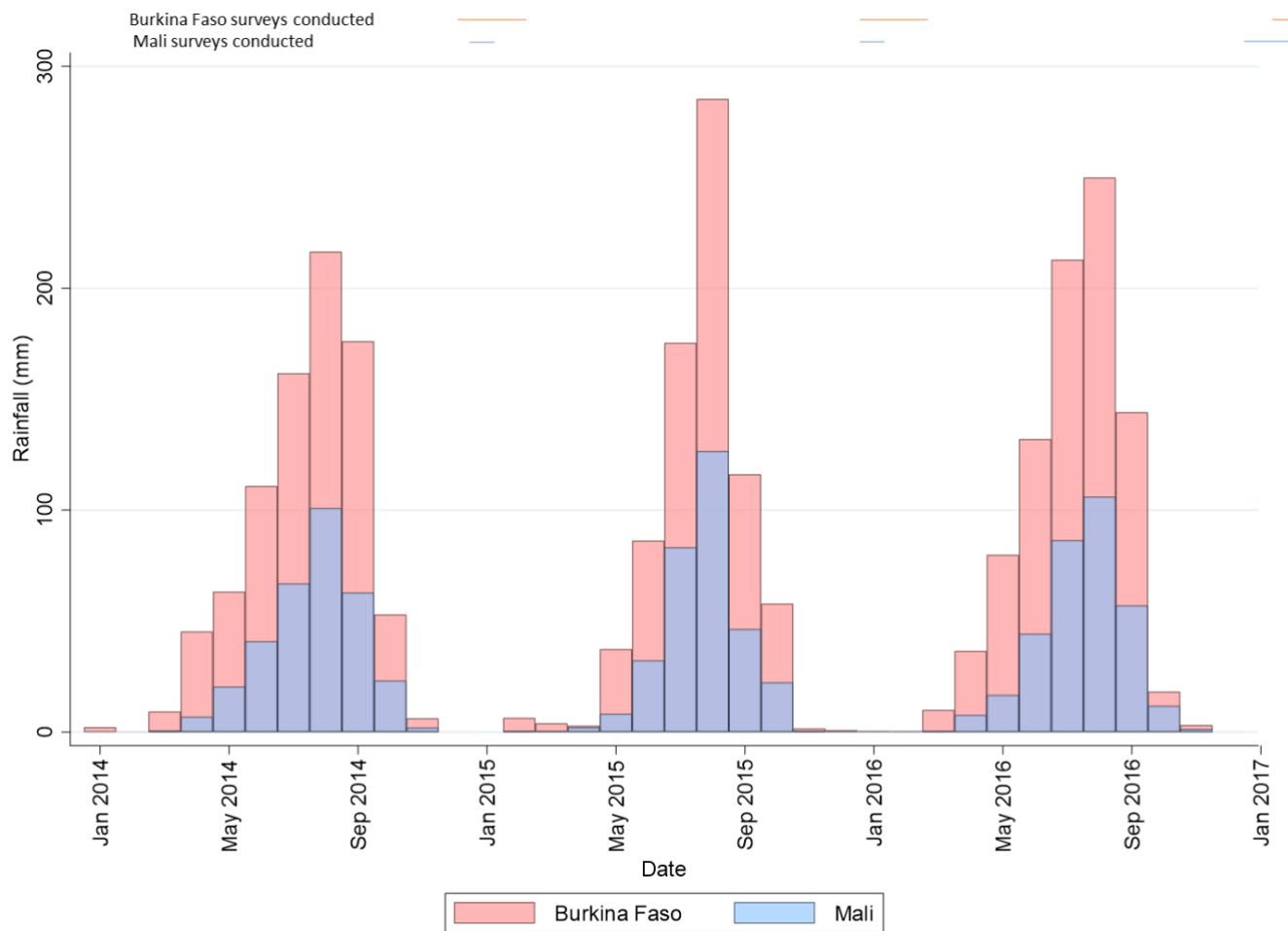
Table S4. Comparison of Pre- and Post- SMC MUAC and MUAC-for-age data (2015), pooled data from both countries

2015	SMC + Placebo			SMC + Azithromycin			Difference in mean change from pre- to post-SMC between treatment arms (95%CI)	p-value
	Mean pre-SMC (SD)	Mean post-SMC (SD)	Difference (95% CI)	Mean pre-SMC (SD)	Mean post-SMC (SD)	Difference (95% CI)		
Muac (cm)	14.54 (1.31)	14.91 (1.28)	0.37 (0.31,0.42)	14.50 (1.29)	14.90 (1.24)	0.40 (0.34,0.45)	0.02 (-0.06, 0.10)	0.684
Muac for age (Z-score)	-0.57 (1.01)	-0.55 (0.97)	-0.02 (-0.07, 0.03)	-0.62 (1.00)	-0.56 (0.94)	0.02 (-0.03, 0.07)	0.03 (-0.04, 0.11)	0.390

Table S5. Comparison of Pre- and Post- SMC data MUAC-for-age, WAZ, HAZ, WHZ (2016), pooled data from both countries

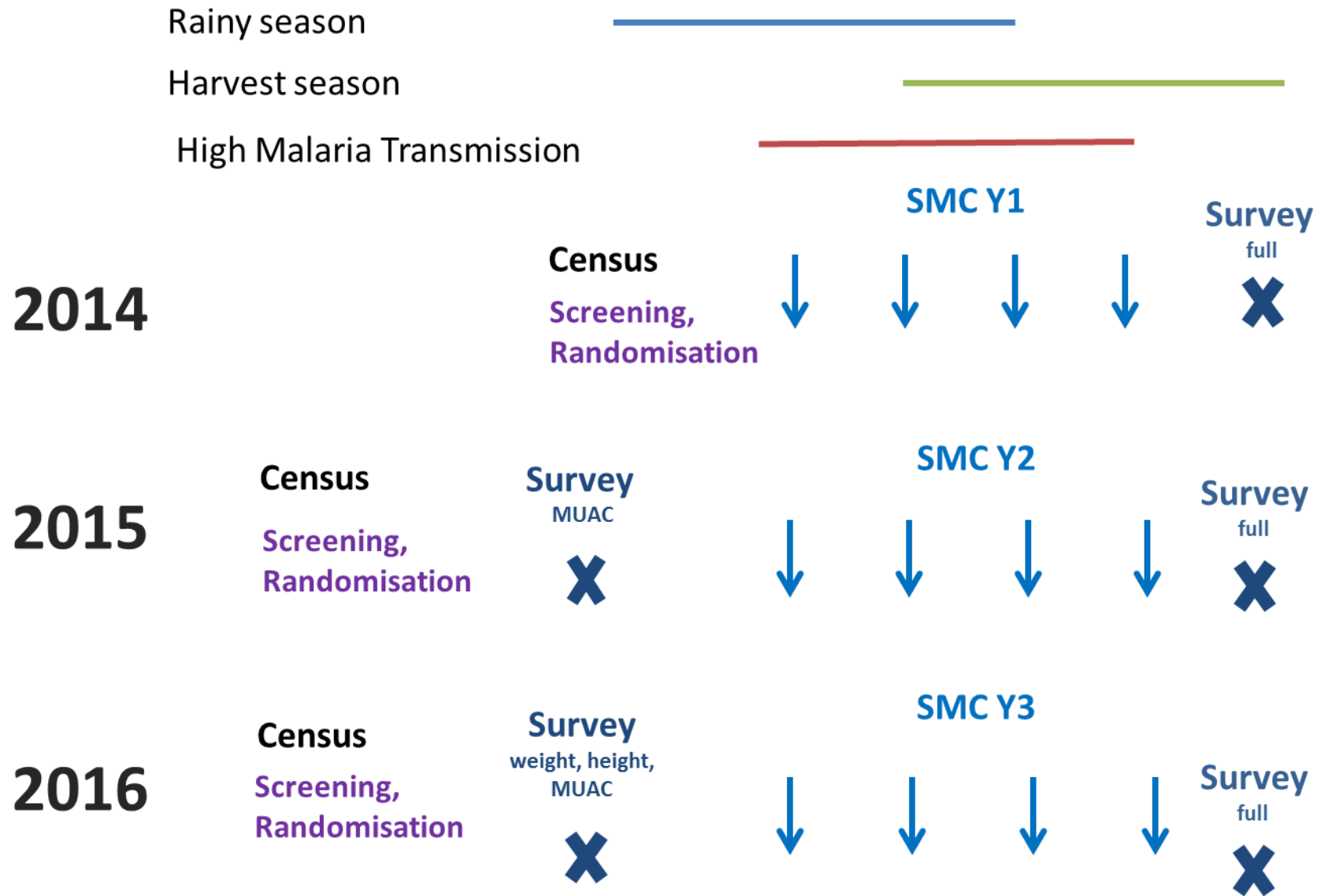
2016	SMC + Placebo			SMC + Azithromycin			Difference in mean change from pre- to post-SMC between treatment arms (95%CI)	p-value
	Mean pre-SMC (SD)	Mean post-SMC (SD)	Difference	Mean pre-SMC (SD)	Mean post-SMC (SD)	Difference		
MUAC for age (Z-score)	-0.62 (0.91)	-0.65 (0.97)	-0.03	-0.58 (0.94)	-0.64 (0.92)	-0.06	-0.02 (-0.08 ,0.03)	0.434
Weight-for -age (Z-score)	-1.22 (1.53)	-1.18 (1.33)	0.04	-1.20 (1.29)	-1.19 (1.29)	0.01	-0.01 (-0.10 ,0.08)	0.794
Height-for -age (Z-score)	-1.08 (1.99)	-1.22 (1.66)	-0.14	-1.06 (2.03)	-1.19 (1.58)	-0.13	0.05 (-0.06 ,0.16)	0.381
Weight-for-height (Z-score)	-0.96 (1.87)	-0.79 (1.56)	0.17	-0.95 (1.92)	-0.82 (1.62)	0.13	-0.03 (-0.16 ,0.11)	0.723

Figure S1. Monthly rainfall (mm) for Burkina Faso and Mali



Data source: World Bank Group, Climate Change Knowledge Portal For Development Practitioners and Policy Makers.
<https://climateknowledgeportal.worldbank.org/download-data>

Figure S2. Schematic of data collection activities



Full survey = weight, height, muac, Hb

Figure S3: Distribution of nutrition outcomes between study arms in children younger than one year of age (2014)

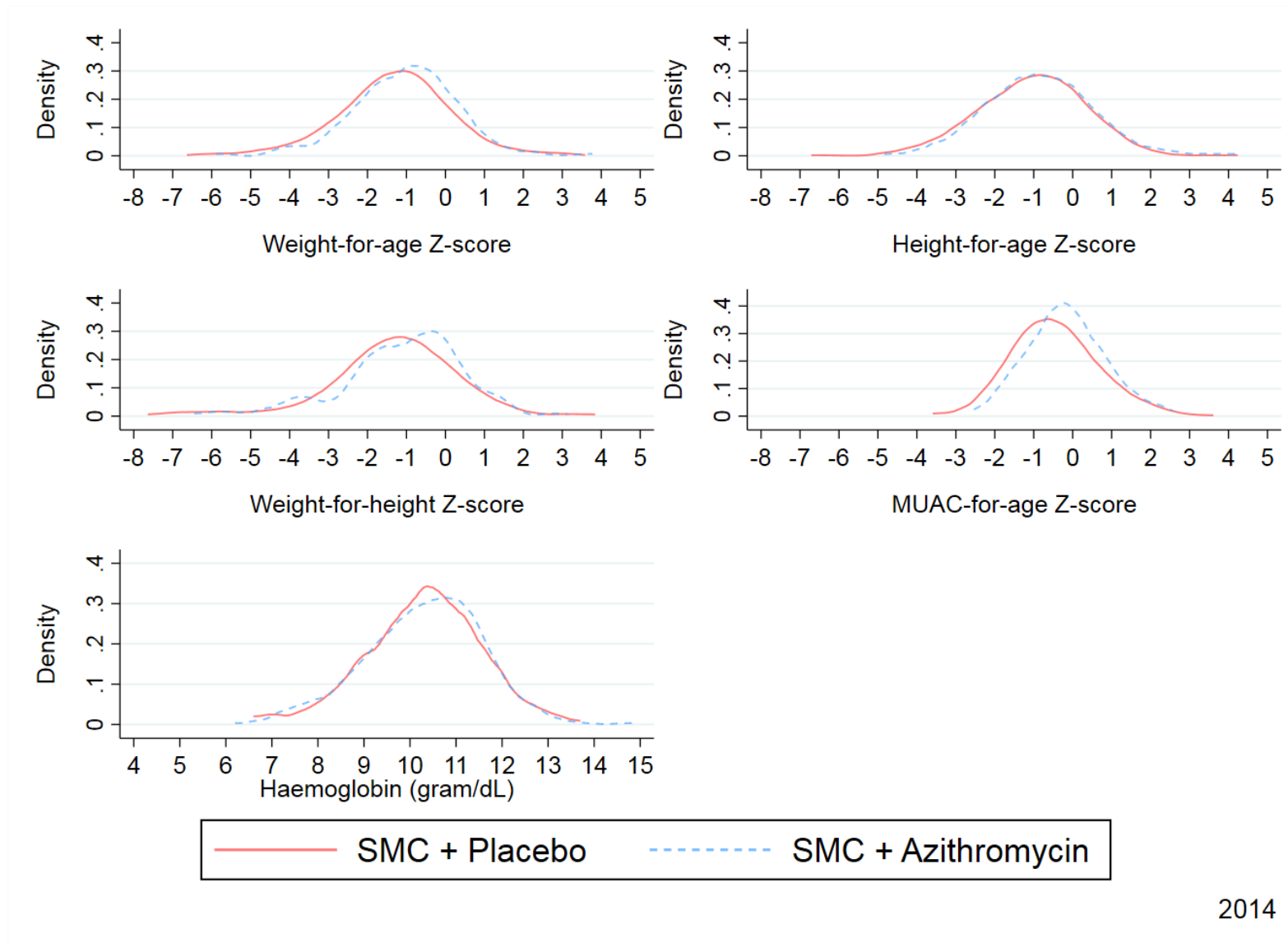


Figure S4: Distribution of nutrition outcomes between study arms in children younger than one year of age (2015)

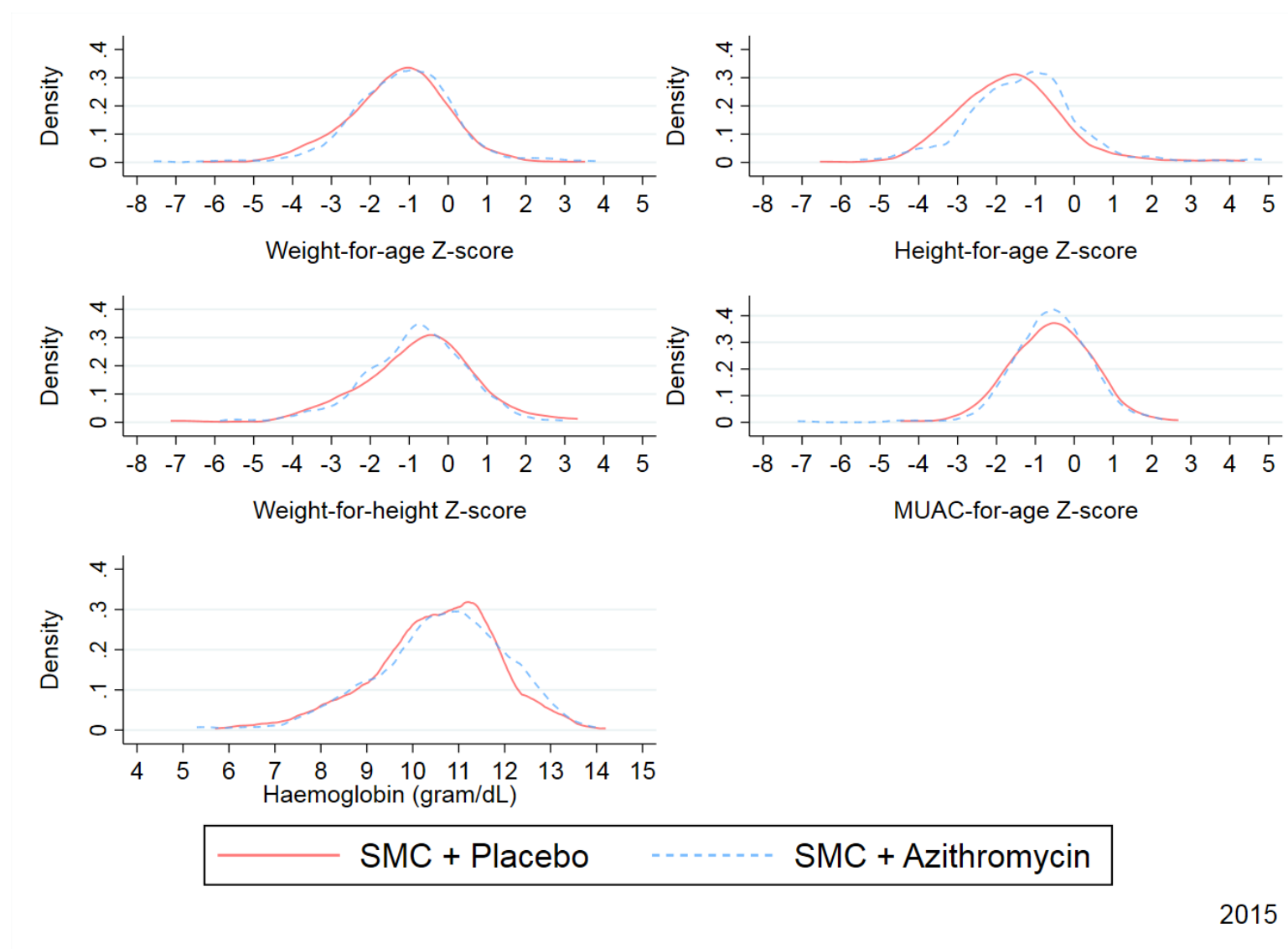


Figure S5: Distribution of nutrition outcomes between study arms in children younger than one year of age (2016)

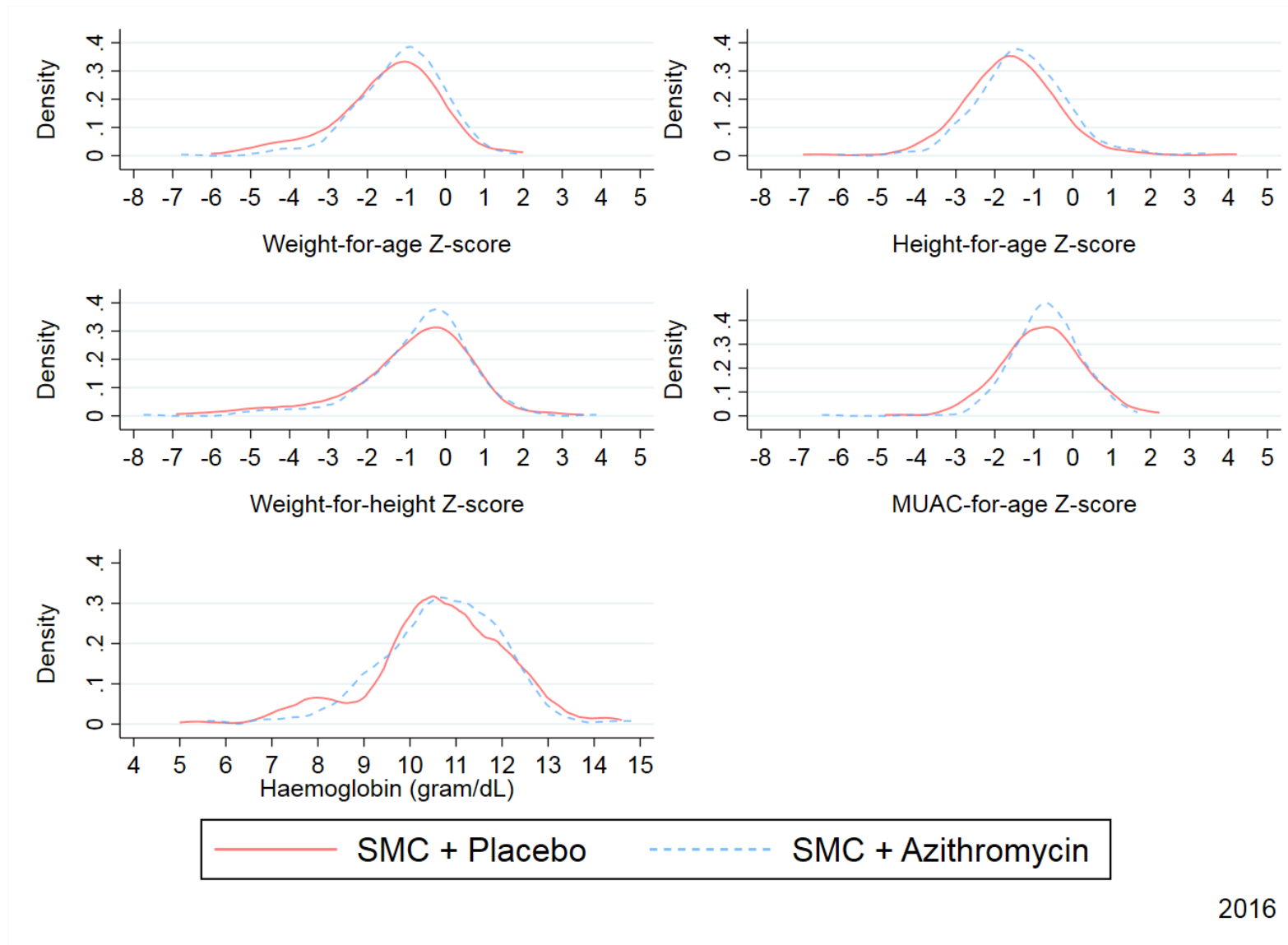


Figure S6: Distribution of nutrition outcomes between study arms in children 13-24 months of age (2014)

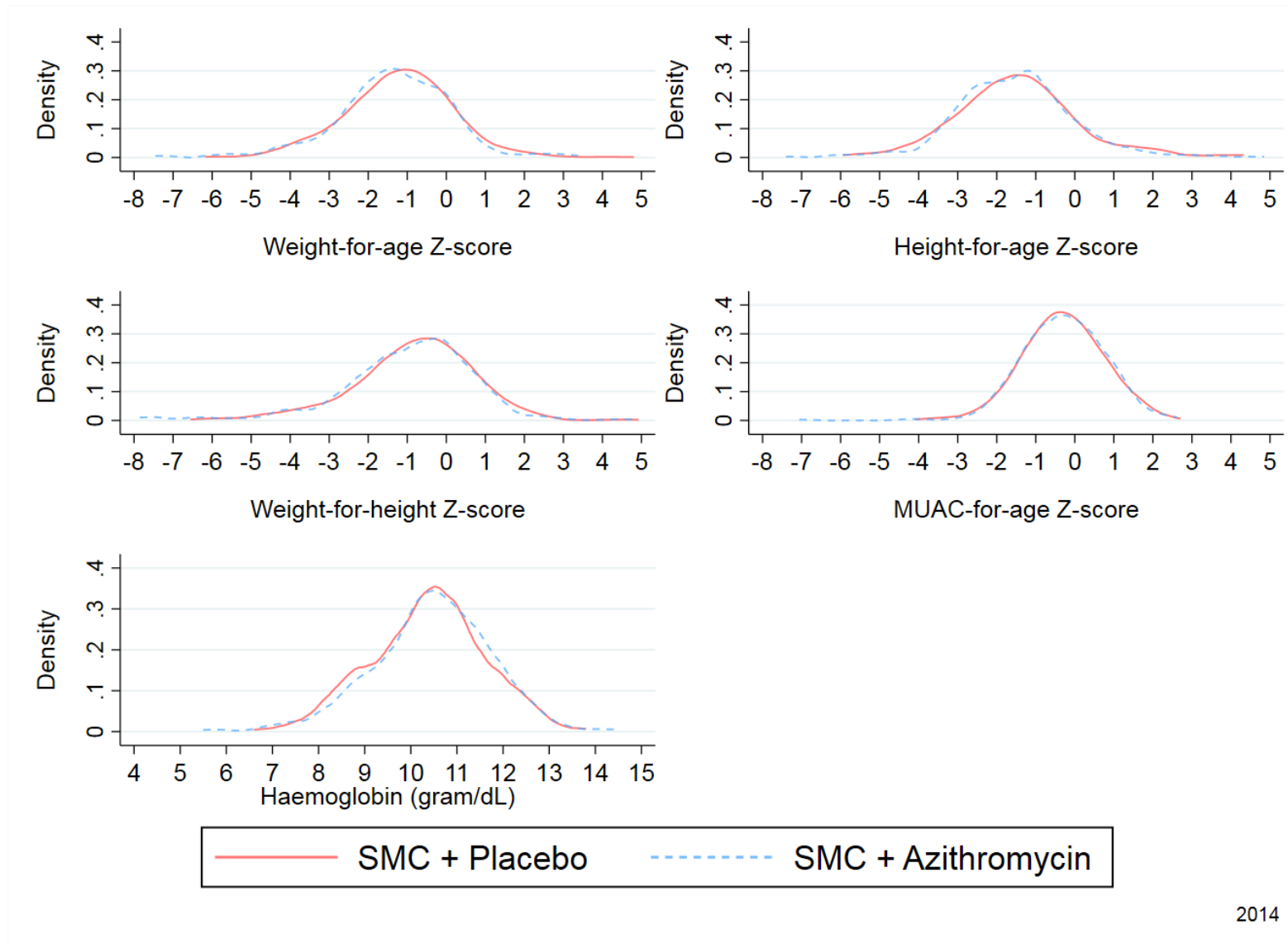


Figure S7: Distribution of nutrition outcomes between study arms in children 13-24 months of age (2015)

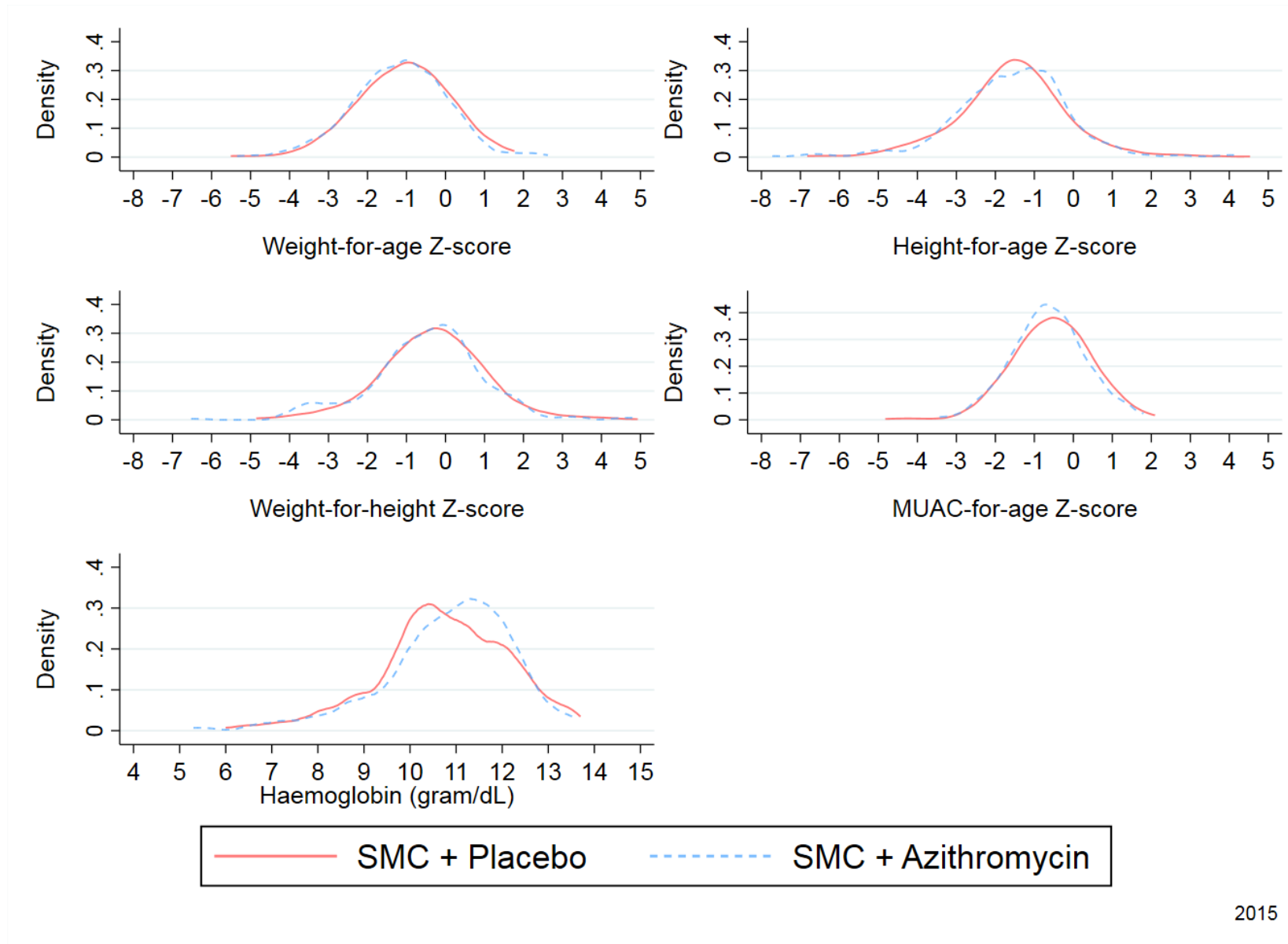


Figure S8: Distribution of nutrition outcomes between study arms in children 13-24 months of age (2016)

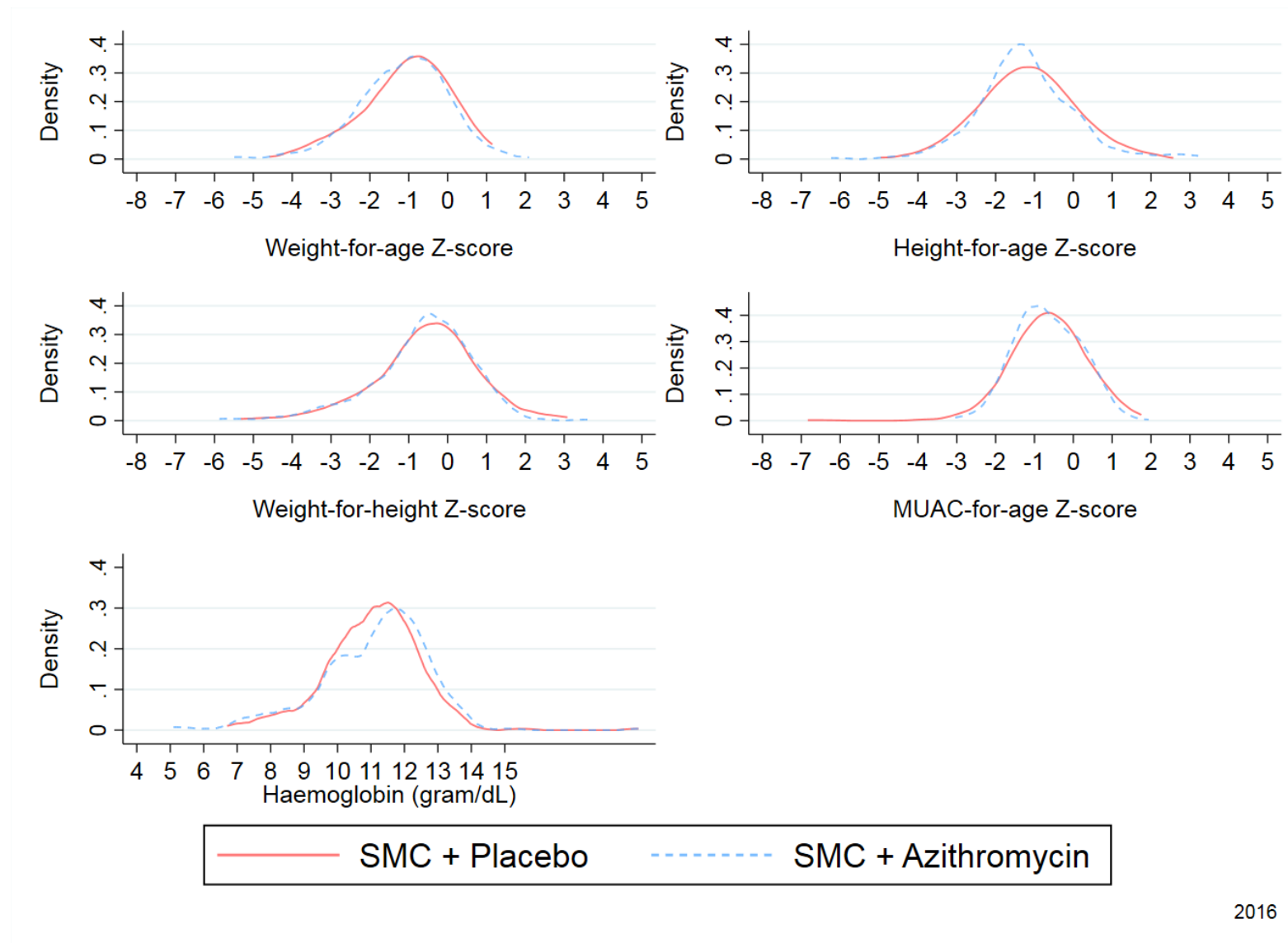


Figure S9. Incidence of gastro-intestinal illnesses in Burkina Faso over the study period

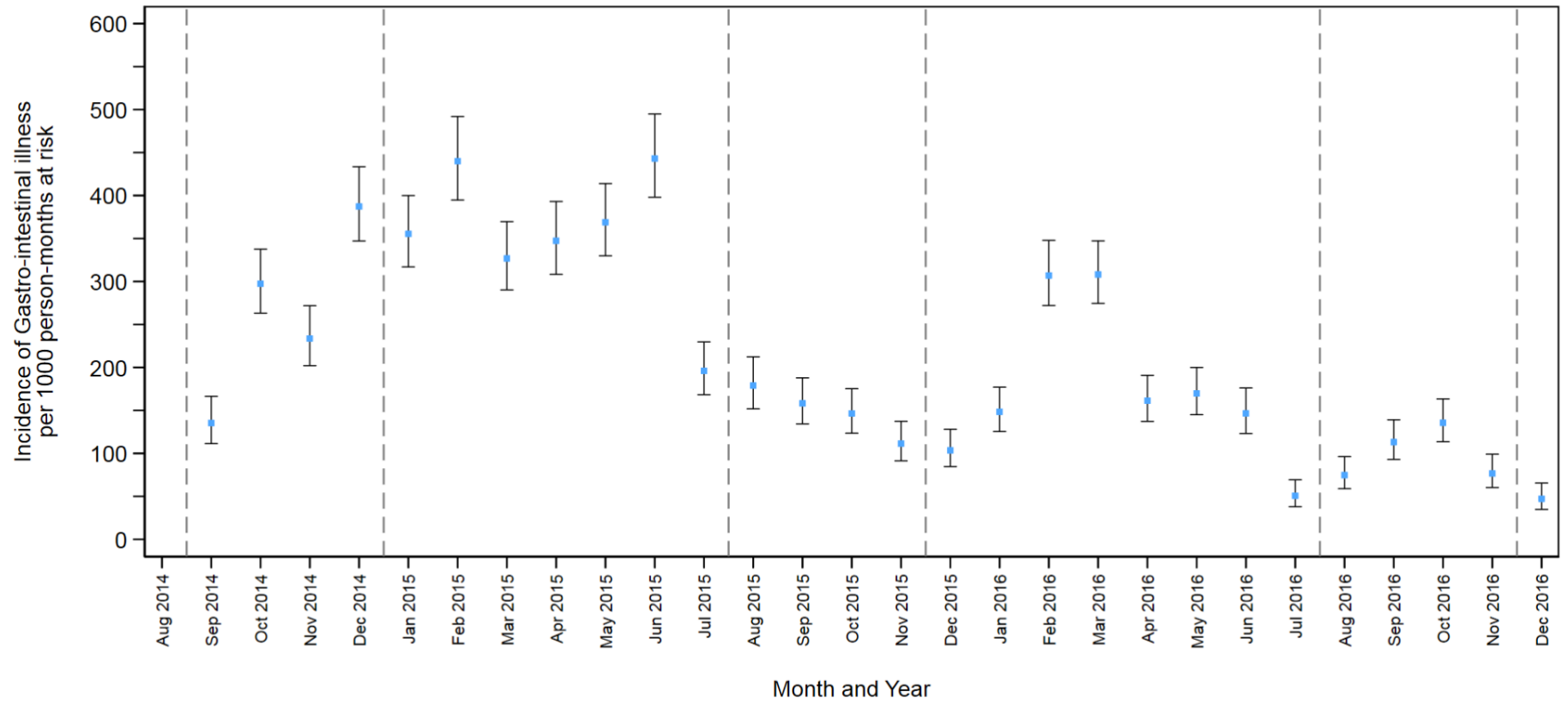


Figure S10. Incidence of gastro-intestinal illnesses in Mali over the study period

