

Supplemental Table 1. Logistic regression models evaluating associations between iron status and prevalent infectious disease (reference: iron replete)

	Model 1: Crude <sup>a</sup>			Model 2: Adjusted for identified confounders <sup>b</sup>			Model 3: Adjusted for all individual characteristics <sup>c</sup>		
	OR	95% CI	P-value	aOR	95% CI	P-value	aOR	95% CI	P-value
<b>Outcome: physician's diagnosis of any infectious disease</b>									
Iron deficient erythropoiesis	0.69	0.32, 1.51	0.359	0.84	0.34, 2.06	0.698	0.79	0.31, 2.01	0.614
Iron deficiency anemia	1.42	0.62, 3.28	0.407	2.42	0.87, 6.79	0.091	2.90	1.02, 8.30	0.047
Non-iron deficiency anemia	1.56	0.67, 3.62	0.300	1.92	0.75, 4.94	0.174	2.10	0.80, 5.52	0.131
Age				0.91	0.71, 1.17	0.455	0.90	0.69, 1.17	0.421
Male sex				0.68	0.34, 1.36	0.274	0.64	0.32, 1.31	0.225
Triceps skinfold thickness				0.84	0.73, 0.96	0.008	0.83	0.72, 0.95	0.008
Early weaning							1.79	0.79, 4.09	0.165
Earth housing material							1.04	0.51, 2.12	0.906
Cattle ownership							1.17	0.56, 2.44	0.680
<b>Outcome: physician's diagnosis of malaria</b>									
Iron deficient erythropoiesis	1.25	0.42, 3.70	0.691	1.37	0.40, 4.74	0.620	1.44	0.41, 5.08	0.568
Iron deficiency anemia	1.80	0.54, 6.02	0.337	3.75	0.95, 14.76	0.059	4.45	1.10, 18.00	0.036
Non-iron deficiency anemia	1.11	0.27, 4.51	0.884	1.41	0.34, 5.92	0.637	1.37	0.32, 5.84	0.666
Age				1.09	0.77, 1.54	0.637	1.06	0.73, 1.52	0.762
Male sex				0.33	0.11, 0.97	0.044	0.33	0.11, 0.98	0.045
Triceps skinfold thickness				0.91	0.76, 1.08	0.261	0.90	0.76, 1.07	0.249
Early weaning							0.95	0.28, 3.23	0.940
Earth housing material							0.96	0.36, 2.55	0.942
Cattle ownership							1.51	0.53, 4.33	0.439
<b>Outcome: physician's diagnosis of respiratory infectious disease</b>									
Iron deficient erythropoiesis	0.62	0.25, 1.54	0.302	0.63	0.21, 1.92	0.413	0.51	0.15, 1.70	0.272
Iron deficiency anemia	0.95	0.34, 2.64	0.928	1.58	0.46, 5.43	0.465	1.75	0.50, 6.07	0.379
Non-iron deficiency anemia	1.03	0.37, 2.87	0.950	1.69	0.57, 4.99	0.345	1.87	0.62, 5.67	0.268
Age				0.86	0.64, 1.16	0.326	0.86	0.63, 1.17	0.338
Male sex				0.75	0.33, 1.70	0.487	0.67	0.29, 1.57	0.360
Triceps skinfold thickness				0.82	0.70, 0.96	0.016	0.81	0.68, 0.96	0.016
Early weaning							1.91	0.73, 4.98	0.188
Earth housing material							1.24	0.53, 2.92	0.609
Cattle ownership							0.72	0.30, 1.68	0.435

Outcome: elevated biomarkers of inflammation <sup>d</sup>									
Iron deficient erythropoiesis	1.00	0.55, 1.79	0.991	0.76	0.39, 1.46	0.408	0.75	0.38, 1.48	0.415
Iron deficiency anemia	2.63	1.19, 5.80	0.017	2.25	0.87, 5.82	0.095	2.70	0.99, 7.41	0.053
Non-iron deficiency anemia	1.57	0.74, 3.31	0.239	1.53	0.67, 3.51	0.310	1.61	0.69, 3.73	0.271
Age				0.87	0.71, 1.06	0.172	0.88	0.71, 1.08	0.226
Male sex				0.90	0.52, 1.57	0.709	0.84	0.47, 1.49	0.546
Triceps skinfold thickness				0.96	0.88, 1.06	0.416	0.96	0.71, 1.08	0.226
Early weaning							1.08	0.53, 2.18	0.836
Earth housing material							1.62	0.92, 2.88	0.097
Cattle ownership							1.26	0.70, 2.27	0.449

<sup>a</sup> N = 283 for models of physician's diagnoses; N = 265 for model of elevated biomarkers of inflammation

<sup>b</sup> N = 239 for models of physician's diagnoses; N = 224 for model of elevated biomarker of inflammation

<sup>c</sup> N = 233 for models of physician's diagnoses; N = 219 for model of elevated biomarker of inflammation

<sup>d</sup> Elevated C-reactive protein (CRP) or  $\alpha_1$ -acid glycoprotein [28]

OR: odds ratio; aOR: adjusted odds ratio; CI: confidence interval

Supplemental Table 2. Logistic regression models evaluating associations between iron status and DTH-*Candida*<sup>a</sup> (reference: iron replete)

	Model 1: Crude <sup>a</sup>			Model 2: Adjusted for identified confounding variables <sup>b</sup>			Model 3: Adjusted for all potentially confounding variables <sup>c</sup>		
	OR	95% CI	P-value	aOR	95% CI	P-value	aOR	95% CI	P-value
<b>Outcome: DTH-<i>Candida</i></b>									
Iron deficient erythropoiesis	1.14	0.65, 2.00	0.656	1.33	0.74, 2.39	0.340	1.40	0.70, 2.76	0.347
Iron deficiency anemia	1.71	0.84, 3.48	0.139	2.34	1.08, 5.07	0.031	2.60	0.99, 6.85	0.053
Non-iron deficiency anemia	1.14	0.56, 2.33	0.716	1.27	0.61, 2.63	0.516	1.39	0.60, 3.20	0.444
Age				1.20	1.02, 1.40	0.027	1.35	1.09, 1.68	0.006
Male sex							1.12	0.63, 1.99	0.696
Triceps skinfold thickness							1.08	0.98, 1.19	0.129
Elevated biomarkers of inflammation <sup>d</sup>							0.77	0.43, 1.36	0.365
Early weaning							1.11	0.55, 2.24	0.776
Earth housing material							0.74	0.42, 1.31	0.309
Cattle ownership							0.88	0.49, 1.31	0.671

<sup>a</sup>N = 283

<sup>b</sup>N = 283

<sup>c</sup>N = 219

<sup>d</sup>Elevated C-reactive protein (CRP) or  $\alpha_1$ -acid glycoprotein (AGP) [28]

DTH-*Candida*: Delayed-type hypersensitivity to *Candida albicans*; OR: odds ratio; aOR: adjusted odds ratio; CI: confidence interval

Supplemental Table 3. Cox proportional hazards models evaluating associations between iron status and incident infectious disease (reference: iron replete)

	Model 1: Crude			Model 2: Adjusted for identified confounders			Model 3: Adjusted for all individual characteristics		
	HR	95% CI	P	aHR	95% CI	P	aHR	95% CI	P
<b>Outcome: physician's diagnosis of any infectious disease</b>									
Iron deficient erythropoiesis	0.62	0.32, 1.19	0.148	0.59	0.28, 1.24	0.162	0.60	0.28, 1.29	0.191
Iron deficiency anemia	0.95	0.47, 1.92	0.879	1.02	0.45, 2.33	0.962	0.94	0.40, 2.21	0.889
Non-iron deficiency anemia	0.98	0.50, 1.91	0.943	0.91	0.44, 1.87	0.800	0.96	0.46, 2.02	0.981
Age							0.84	0.68, 1.03	0.095
Male sex							1.06	0.60, 1.87	0.846
Triceps skinfold thickness				1.00	0.91, 1.09	0.925	0.96	0.86, 1.06	0.382
Elevated biomarkers of inflammation <sup>a</sup>				1.10	0.63, 1.92	0.730	1.12	0.63, 1.99	0.707
Early weaning							0.96	0.48, 1.93	0.911
Earth housing material							0.66	0.37, 1.17	0.153
Cattle ownership							0.98	0.54, 1.80	0.960
<b>Outcome: physician's diagnosis of malaria</b>									
Iron deficient erythropoiesis	0.77	0.18, 3.22	0.718	0.74	0.17, 3.21	0.686	0.67	0.15, 2.99	0.598
Iron deficiency anemia	1.00	0.19, 5.15	0.999	1.27	0.23, 6.87	0.783	1.04	0.18, 6.10	0.959
Non-iron deficiency anemia	1.47	0.35, 6.18	0.595	1.60	0.37, 6.81	0.527	1.62	0.37, 7.10	0.523
Age							0.84	0.55, 1.28	0.410
Male sex							1.10	0.35, 3.51	0.870
Triceps skinfold thickness				1.06	0.89, 1.25	0.519	1.04	0.85, 1.26	0.716
Elevated biomarkers of inflammation <sup>a</sup>				0.62	0.20, 1.87	0.394	0.63	0.20, 1.95	0.420
Early weaning							1.25	0.33, 4.80	0.742
Earth housing material							0.77	0.24, 2.41	0.648
Cattle ownership							0.69	0.22, 2.19	0.533
<b>Outcome: physician's diagnosis of respiratory infectious disease</b>									
Iron deficient erythropoiesis	0.31	0.10, 0.93	0.037	0.24	0.07, 0.87	0.030	0.23	0.06, 0.84	0.027
Iron deficiency anemia	1.09	0.44, 2.67	0.854	0.93	0.31, 2.73	0.891	0.78	0.26, 2.40	0.668
Non-iron deficiency anemia	0.87	0.31, 2.40	0.786	0.76	0.25, 2.34	0.639	0.91	0.29, 2.89	0.876
Age							0.71	0.52, 0.97	0.029
Male sex							1.31	0.57, 3.02	0.526
Triceps skinfold thickness				1.05	0.93, 1.19	0.442	1.00	0.87, 1.16	0.965
Elevated biomarkers of inflammation <sup>a</sup>				0.96	0.44, 2.12	0.921	0.82	0.36, 1.87	0.635

Early weaning	1.03	0.40, 2.68	0.951
Earth housing material	0.64	0.27, 1.47	0.289
Cattle ownership	0.89	0.38, 2.08	0.790

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<sup>a</sup> Elevated C-reactive protein (CRP) or  $\alpha_1$ -acid glycoprotein (AGP) [28]  
HR: hazard ratio; aHR: adjusted hazard ratio; CI: confidence interval

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