

Supplementary Table 2: Association between enteric viral pathogens and child growth (Anthropometry: HAZ/LAZ, WAZ, and WHZ): results of multiple linear regression modeling and mixed effect modeling (dependent variables— HAZ/LAZ, WAZ, and WHZ) among under-five children in South Asia and sub-Saharan Africa
Comparison between mixed effect model and multiple linear regression model

Symptomatic MSD children									
Mixed effect model				Multiple linear regression					
Predictors	Estimates	CI	p	Estimates	CI	p	Random Effects		
Rotavirus	0.11	0.04 – 0.18	0.001	0.11	0.06 – 0.16	<0.001	σ ²	0.2	
Norovirus	0.09	-0.01 – 0.18	0.081	0.08	0.01 – 0.15	0.031	τ ₀₀	1.32 _{childid}	
Adenovirus	-0.06	-0.22 – 0.11	0.499	-0.05	-0.17 – 0.07	0.392	Marginal R ² / Conditional R ²		
Astrovirus	-0.16	-0.32 – 0.01	0.062	-0.16	-0.28 – -0.04	0.008		0.136 / 0.885	0.135
Sapovirus	0.03	-0.11 – 0.18	0.633	0.02	-0.08 – 0.13	0.665			
Rotavirus	0.04	-0.02 – 0.11	0.202	0.04	-0.01 – 0.09	0.125	σ ²	0.42	
Norovirus	0.14	0.04 – 0.24	0.005	0.13	0.06 – 0.21	<0.001	τ ₀₀	1.26 _{childid}	
Adenovirus	0	-0.17 – 0.17	0.999	0.01	-0.12 – 0.13	0.911	Marginal R ² / Conditional R ²		
Astrovirus	-0.09	-0.26 – 0.08	0.294	-0.09	-0.22 – 0.04	0.158		0.107 / 0.774	0.109
Sapovirus	0.13	-0.02 – 0.27	0.08	0.12	0.02 – 0.23	0.024			
Rotavirus	-0.04	-0.11 – 0.03	0.293	-0.04	-0.10 – 0.01	0.144	σ ²	0.91	
Norovirus	0.13	0.03 – 0.22	0.012	0.12	0.04 – 0.20	0.003	τ ₀₀	1.04 _{childid}	
Adenovirus	0.03	-0.14 – 0.20	0.75	0.03	-0.10 – 0.17	0.645	Marginal R ² / Conditional R ²		
Astrovirus	0.001	-0.17 – 0.17	0.995	0.001	-0.13 – 0.14	0.944		0.088 / 0.576	0.09
Sapovirus	0.16	0.01 – 0.30	0.031	0.16	0.04 – 0.27	0.009			
Asymptomatic children									
Mixed effect model				Multiple linear regression					
Predictors	Estimates	CI	p	Estimates	CI	p			
Rotavirus	-0.04	-0.15 – 0.07	0.469	-0.04	-0.12 – 0.04	0.311	σ ²	0.22	
Norovirus	-0.05	-0.14 – 0.03	0.183	-0.05	-0.11 – 0.01	0.105	τ ₀₀	1.28 _{childid}	
Adenovirus	-0.12	-0.36 – 0.13	0.364	-0.12	-0.30 – 0.07	0.215	Marginal R ² / Conditional R ²		
Astrovirus	-0.04	-0.19 – 0.11	0.611	-0.04	-0.15 – 0.07	0.493		0.128 / 0.872	0.129
Sapovirus	-0.06	-0.17 – 0.06	0.339	-0.06	-0.15 – 0.02	0.162			
Rotavirus	-0.09	-0.20 – 0.02	0.093	-0.09	-0.18 – -0.01	0.026	σ ²	0.37	
Norovirus	-0.13	-0.21 – -0.05	0.001	-0.12	-0.18 – -0.06	<0.001	τ ₀₀	1.14 _{childid}	
Adenovirus	-0.27	-0.52 – -0.03	0.027	-0.27	-0.46 – -0.09	0.003	Marginal R ² / Conditional R ²		
Astrovirus	0.02	-0.13 – 0.17	0.799	0.02	-0.09 – 0.13	0.735		0.115 / 0.782	0.115
Sapovirus	-0.14	-0.25 – -0.02	0.017	-0.14	-0.23 – -0.06	0.001			
Rotavirus	-0.1	-0.21 – 0.01	0.076	-0.1	-0.19 – -0.01	0.025	σ ²	0.76	
Norovirus	-0.13	-0.22 – -0.05	0.001	-0.13	-0.20 – -0.07	<0.001	τ ₀₀	1.03 _{childid}	
Adenovirus	-0.34	-0.59 – -0.09	0.008	-0.34	-0.54 – -0.14	0.001	Marginal R ² / Conditional R ²		
Astrovirus	0.04	-0.11 – 0.19	0.606	0.04	-0.08 – 0.16	0.515		0.091 / 0.615	0.091
Sapovirus	-0.17	-0.29 – -0.06	0.004	-0.18	-0.27 – -0.08	<0.001			
Presence of any viral pathogen									
Symptomatic MSD Children									
Mixed effect model				Multiple linear regression			Random effect		
	Estimates	CI	p	Estimates	CI	p	τ ₀₀	Marginal R ² / Conditional R ²	
HAZ	0.09	0.03 – 0.14	0.003	0.08	0.04 – 0.12	<0.001	1.32	0.136 / 0.885	0.135
WAZ	0.07	0.01 – 0.13	0.016	0.07	0.02 – 0.11	0.003	1.26	0.106 / 0.774	0.108
WHZ	0.02	-0.04 – 0.08	0.506	0.02	-0.03 – 0.06	0.504	1.04	0.106 / 0.774	0.108
Asymptomatic Children									
HAZ	-0.05	-0.11 – 0.01	0.1	-0.05	-0.09 – -0.00	0.032	1.28	0.128 / 0.872	0.129
WAZ	-0.12	-0.18 – -0.06	<0.001	-0.12	-0.16 – -0.07	<0.001	1.14	0.116 / 0.782	0.116
WHZ	-0.14	-0.20 – -0.08	<0.001	-0.14	-0.18 – -0.09	<0.001	1.03	0.092 / 0.615	0.092
Combined viral pathogen									
Asymptomatic Children									
	Estimates	CI	p	Estimates	CI	p			
HAZ	-0.04	-0.11 – 0.02	0.194	-0.04	-0.09 – 0.01	0.1	1.28	0.128 / 0.872	0.129
WAZ	-0.11	-0.17 – -0.04	0.001	-0.1	-0.15 – -0.06	<0.001	1.14	0.116 / 0.782	0.116
WHZ	-0.12	-0.19 – -0.06	<0.001	-0.12	-0.17 – -0.07	<0.001	1.03	0.092 / 0.615	0.092
Symptomatic MSD Children									
HAZ	0.02	-0.06 – 0.09	0.708	0.01	-0.05 – 0.06	0.817	1.32	0.135 / 0.885	0.134
WAZ	0.06	-0.02 – 0.14	0.146	0.05	-0.01 – 0.12	0.079	1.26	0.106 / 0.774	0.108
WHZ	0.07	-0.01 – 0.15	0.086	0.07	0.00 – 0.14	0.037	1.04	0.088 / 0.576	0.09