

Supporting information: Health inequalities at the intersection of multiple social determinants among under five children residing Nairobi urban slums: an application of multilevel analysis of individual heterogeneity and discriminatory accuracy (MAIHDA).

Statistical details

Let y_{ij} denote a binary health outcome (i.e., whether has an outcome or not) for child i ($i = 1, \dots, n$) in intersectional strata j ($j = 1, \dots, N$) where:

$$y_{ij} = \begin{cases} 0 & \text{absence of health outcome} \\ 1 & \text{Presence of health outcome} \end{cases} \quad \text{Eq. (1)}$$

y_{ij} is assumed to follow a Bernoulli distribution, with probabilities $\pi_{ij} = Pr(y_{ij} = 0)$ the probability of child i from intersectional stratus j having no health outcome and $1 - \pi_{ij} = Pr(y_{ij} = 1)$ the probability of child i from stratus j having a health outcome. Let X'_{ij} be a vector of social determinants of health (SDOH) used as explanatory variables. The multilevel logistic for model 1 with no main effects takes the form:

$$\text{logit}(\pi_{ij}) = \log\left(\frac{\pi_{ij}}{1-\pi_{ij}}\right) = \beta_0 + \mu_{0j} \quad \text{Eq. (2)}$$

where β_0 is the intercept and $\mu_{0j} \sim N(0, \sigma_\mu^2)$ represents the random intercept for the intersectional stratum level residual which is normally distributed with mean 0 and variance σ_μ^2 . Model 1 include explanatory variables, so the intersectional stratum random effect captures both the main effects of SDOH used to define intersectional strata and their interactions. Assuming no omitted variable bias, the intersectional strata level residual μ_{0j} captures the unique intersectional effects for each intersectional strata (i.e., intersectional -specific differences in health condition) while accounting for sample size differences for each social group.

Eq. 2 can be extended into model 2 by including main effects (i.e., SDOH used in construction intersectional strata) as explanatory variables and takes the form:

$$\text{logit}(\pi_{ij}) = \log\left(\frac{\pi_{ij}}{1-\pi_{ij}}\right) = \beta_0 + X'_{ij}\beta + \mu_{0j} \quad \text{Eq. (3)}$$

where β_0 is the intercept, X'_{ij} is a vector of vector of SDOH used in creating intersectional strata with coefficient vector β , and $\mu_{0j} \sim N(0, \sigma_\mu^2)$ is a random intercept assumed to follow a normal distribution with mean 0 and variance σ_μ^2 .

We used variance partitioning coefficient (VPC) to estimate discriminatory accuracy of intersectional strata in models 1 and 2 (1, 2). VPC indicates the share of the total individual variance in the probability of having a health outcome that is accounted for at the intersectional strata level (2). VPCs were calculated for both model 1 and 2 using Equation (4):

$$VPC = \left(\frac{\sigma_\mu^2}{\sigma_\mu^2 + 3.29} \right) \times 100\% \quad \text{Eq. (4)}$$

Where σ_μ^2 denotes the between stratum variance in the propensity for having a health outcome, while 3.29 indicates the within stratum between individual stratum variance constrained equal to the variance of the standard logistic distribution (3). VPC will be presented as the percentage share of individual variance which lies between strata. In model 2, assuming no relevant variables were omitted when constructing strata, VPC inform on the existence of intersectional multiplicative interaction effects (1, 4, 5).

The proportion of variance explained by the adding main effects is estimated by calculating the proportional change in variance (PCV) of intersectional strata between null model and model including fixed effects (1)

$$PCV = \left(\frac{\sigma_{\mu(1)}^2 - \sigma_{\mu(2)}^2}{\sigma_{\mu(1)}^2} \right) \times 100\% \quad \text{Eq. (5)}$$

where $\sigma_{\mu(1)}^2$ and $\sigma_{\mu(2)}^2$ represents the intersectional strata variances in the null model and the model containing main effects respectively. The PCV represents the proportion of the total between-stratum variance of intersectional strata of the null model that is explained after including main effects. In the absence of any stratum specific interactions, the main effects used to construct the intersectional strata would completely explain the between stratum variance and all stratum random effects would be equal to zero. This implies that, the lower the PCV, the higher the amount explained variance which can be due to interaction effects or to omitted variable bias (1, 4, 5). For model 3, we just added the explanatory variables which were not included in model 2.

Diarrhea

Table a1: Distribution of socio determinants characteristics for diarrhea in Nairobi Cross-sectional survey 2012

Variable	Categories	Diarrhea		
		Yes	No	
Children demographic characteristics				
Age	1 year and less (infants)	124 (21.3%)	458 (78.7%)	582 (33.5%)
	2 -5 years	180 (15.6%)	976 (84.4%)	1,156 (66.5%)
Sex	Male	161 (19.0%)	687 (81.0%)	848 (48.8%)
	Female	143 (16.1%)	747 (83.9%)	890 (51.2%)
Women characteristics				
Age	18 years and under	25 (23.1%)	83 (76.9%)	108 (6.2%)
	19 years and above	279 (17.1%)	1,351 (82.9%)	1,630 (93.8%)
Education	Primary	164 (18.5%)	722 (81.5%)	886 (51.0%)
	Post primary	136 (16.5%)	687 (83.5%)	823 (47.4%)
	None	4 (13.8%)	25 (86.2%)	28 (1.7%)
Head of household demographic characteristics				
Gender	Female	43 (19.1%)	182 (80.9%)	225 (12.9%)
	Male	261 (17.3%)	1,252 (82.7%)	1,513 (87.1%)
Ethnicity	Kamba	39 (13.3%)	255 (86.7%)	294 (16.9%)
	Kikuyu	46(13.9%)	284 (86.1%)	330 (19.0%)
	Luhya	106 (21.8%)	380 (78.2%)	486 (28.0%)
	Luo	72 (20.5%)	280 (79.5%)	352 (20.3%)
	Other	41 (14.9%)	235 (85.1%)	276 (15.9%)
Age	17 – 24years	25 (18.4%)	111 (81.6%)	136 (7.8%)
	25 -34 years	186 (18.7%)	807 (81.3%)	993 (57.1%)
	35 years above	93 (15.3%)	516 (84.7%)	609 (35.0%)
education	None	13 (10.4%)	112 (89.6%)	125 (7.2%)
	educated	191 (18.1%)	864 (81.9%)	1,055 (60.7%)
	Don't know and not applicable	100 (17.9%)	458 (82.1%)	558 (32.1%)
Social Structure				
Wealth index	Rich	120 (14.0%)	740 (86.0%)	860 (49.5%)
	Middle	86 (22.1%)	303 (77.9%)	389 (22.4%)
	Poor	98 (20.0%)	391 (80.0%)	489 (28.1%)
Length of stay	New migrants	36 (25.0%)	108 (75.0%)	144 (8.3%)
	Old migrants	123 (18.0%)	559 (82.0%)	682 (39.2%)
	Not applicable	145 (15.9%)	767 (84.1%)	912 (52.5%)
Household religion	Catholic	63 (14.8%)	363 (85.2%)	426 (24.5%)
	Protestant	220 (19.3%)	921 (80.7%)	1,141 (65.7%)
	Other	21 (12.3%)	150 (87.7%)	171 (9.8%)
Disability in household	Yes	6 (25.0%)	18 (75.0%)	20 (1.4%)
	No	282 (17.8%)	1,299 (82.2%)	1,581 (91.0%)
	Missing/Not applicable	16 (12.0%)	117 (88.0%)	133 (7.7%)
Tenure	No rent paid	9 (8.7%)	95 (91.3%)	104 (6.0%)
	Pays rent	295 (18.1%)	1,339 (81.9%)	1,634 (94.0%)
Food availability	enough	51 (13.5%)	326 (86.5%)	377 (21.7%)
	not enough	253 (18.6%)	1,108 (81.4%)	1,361 (78.3%)
Income generating activity	Employed	94 (19.7%)	383 (80.3%)	477 (27.4%)
	Own business	22 (14.2%)	133 (85.8%)	155 (8.9%)
	Not applicable	188 (17.0%)	918 (83.0%)	1,106 (63.6%)
Health Insurance	Yes	69 (13.7%)	436 (86.3%)	505 (29.1%)
	No	235 (19.1%)	998 (80.9%)	1,233 (70.9%)
health catastrophic costs	No	276 (17.2%)	1,324 (82.8%)	1,600 (92.1%)
	Yes	28 (20.3%)	110 (79.7%)	138 (7.9%)
Total		304 (17.5%)	1,434 (82.5%)	1,738 (100.0%)

Table a2: Univariate analyses for diarrhea in Nairobi Cross-sectional survey 2012

		Coefficient	Standard Error	P-value
Intercept	Category (reference)			
Child age	1 year and less (ref)			
	2 -5 years	-0.39	0.14	0.01***
Child Sex	Female (ref)			
	Male	0.20	0.13	0.25
Head of household sex	Female (ref)			
	Male	-0.13	0.18	0.49
Head of household age	17 – 24 (ref)			
	25 -34	0.03	0.25	0.92
	35 and above	-0.22	0.24	0.37
Head of household ethnicity	Kamba (ref)			
	Kikuyu	0.06	0.24	0.81
	Luhya	0.60	0.20	0.01**
	Luo	0.52	0.22	0.01**
Wealth index	Other	0.13	0.24	0.56
	Rich (ref)			
	Middle	0.56	0.16	0.01***
	Poor	0.44	0.15	0.01***
Length of stay	New migrants (ref)			
	Missing	-0.57	0.21	0.01**
	Old migrants	-0.42	0.22	0.06
Health insurance	No (ref)			
	Yes	-0.40	0.15	0.01***
Catastrophic health costs	No (ref)			
	Yes	0.20	0.22	0.37
Food security ⁸	Enough (ref)			
	Not enough	0.37	0.17	0.02*
Income generating activity	Employed (ref)			
	Missing/Not applicable	-0.18	0.14	0.20
	Own business	-0.39	0.26	0.13
Highest Education	None (ref)			
	educated	0.63	0.32	0.04*
	Don't know/not applicable	0.64	0.30	0.03*
Religion	Catholic (ref)			
	Protestant	0.32	0.16	0.04*
	Other	-0.22	0.27	0.43
Disability	Missing/not applicable (ref)			
	No	0.46	0.28	0.09
	Yes	0.89	0.54	0.10
Women age	18 years and below (ref)			
	19 years and over	-0.38	0.24	0.11
Women education	Primary (ref)			
	Post primary	-0.14	0.13	0.28
	None	-0.35	0.55	0.52
Tenure	No rent paid (ref)			
	Pays rent	0.84	0.35	0.02**

. ** P<.05: significant

Fever

Table a3: Distribution of socio determinants characteristics for fever in Nairobi Cross-sectional survey 2012.

Variable	Categories	Fever		
		Yes	No	
Children demographic characteristics				
Age	1 year and less (infants)	110 (18.9%)	473 (81.1%)	583 (33.7%)
	2 -5 years	186 (16.2%)	962 (83.8%)	1,148 (66.3%)
Sex	Male	130 (15.3%)	719 (84.7%)	849 (49.0%)
	Female	166 (18.8%)	716 (81.2%)	882 (51.0%)
Women characteristics				
Age	18 years and under	27 (24.3%)	84 (75.7%)	111 (6.4%)
	19 years and above	269 (16.6%)	1,351 (83.4%)	1,620 (9.4%)
Education	Primary	157 (17.8%)	723 (82.3%)	880 (50.8%)
	Post primary	139 (16.9%)	684 (83.1%)	823 (47.5%)
	None	0 (0.0%)	28 (100.0%)	28 (1.6%)
Head of household demographic characteristics				
Gender	Female	33 (15.1%)	185 (84.9%)	218 (12.6%)
	Male	263 (17.4%)	1,250 (82.6%)	1,513 (87.4%)
Ethnicity	Kamba	28 (9.6%)	265 (90.4%)	293 (16.9%)
	Kikuyu	42 (12.8%)	285 (87.2%)	327 (18.9%)
	Luhya	110 (22.7%)	375 (77.3%)	485 (28.0%)
	Luo	62 (17.7%)	288 (82.3%)	350 (20.2%)
	Other	54 (19.6%)	222 (80.4%)	276 (15.9%)
Age	17 – 24years	27 (20.1%)	107 (79.9%)	134 (7.7%)
	25 -34 years	180 (18.2%)	809 (81.8%)	989 (57.1%)
	35 years above	89 (14.6%)	519 (85.4%)	608 (35.1%)
education	None	23 (18.9%)	99 (81.1%)	122 (7.0%)
	Educated	181 (17.4%)	862 (82.6%)	1,043 (60.3%)
	Don't know and not applicable	92 (16.3%)	474 (83.7%)	566 (32.7%)
Social Structure				
Wealth index	Rich	123 (14.5%)	728 (85.5%)	851 (49.2%)
	Middle	80 (20.5%)	311 (79.5%)	391 (22.6%)
	Poor	93 (19.0%)	396 (81.0%)	489 (28.2%)
Length of stay	New migrants	34 (23.4%)	111 (76.6%)	145 (8.4%)
	Old migrants	123 (18.3%)	549 (81.7%)	672 (38.8%)
	Not applicable	139 (15.2%)	775 (84.8%)	914 (52.8%)
Household religion	Catholic	74 (17.5%)	348 (82.5%)	422 (24.4%)
	Protestant	197 (17.3%)	943 (82.7%)	1,140 (65.9%)
	Other	25 (14.8%)	144 (85.2%)	169 (9.8%)
Disability in household	Yes	5 (20.8%)	19 (79.2%)	24 (1.4%)
	No	270 (17.2%)	1,302 (82.8%)	1,572 (90.8%)
	Missing/Not applicable	21 (15.6%)	114 (84.4%)	135 (7.8%)
Tenure	No rent paid	19 (18.1%)	86 (81.9%)	105 (6.1%)
	Pays rent	277 (17.0%)	1,349 (83.0%)	1,626 (93.9%)
Food security	enough	49 (13.2%)	323 (86.8%)	372 (21.5%)
	Not enough	247 (18.2%)	1,112 (81.8%)	1,359 (78.5%)
Income generating activity	Employed	78 (16.6%)	393 (83.4%)	471 (27.2%)
	Own business	25 (16.2%)	129 (83.8%)	154 (8.9%)
	Not applicable	193 (17.5%)	913 (82.5%)	1,106 (63.9%)
Health Insurance	Yes	80 (15.9%)	423 (84.1%)	503 (29.1%)
	No	216 (17.6%)	1,012 (82.4%)	1,228 (70.9%)
health catastrophic costs	No	260 (16.3%)	1,335 (83.7%)	1,595 (92.1%)
	Yes	36 (26.5%)	100 (73.5%)	136 (7.9%)
Total		296 (17.1%)	1,435 (82.9%)	1,731 (100.0%)

Table a4: Univariate analyses results for fever in Nairobi Cross-sectional survey 2012

		Coefficient	Standard Error	P-value
Child age	1 year and less (ref)			
	2 -5 years	-0.18	0.13	0.20
Child Sex	Female (ref)			
	Male	-0.24	0.13	0.05*
Head of household sex	Female (ref)			
	Male	0.17	0.20	0.41
Head of household age	17 – 24 (ref)			
	25 -34	0.42	0.23	0.59
	35 and above	-0.39	0.24	0.11
Ethnic	Kamba (ref)			
	Kikuyu	0.33	0.25	0.20
	Luhya	1.02	0.23	0.01**
	Luo	0.71	0.24	0.01**
	Other	0.83	0.25	0.01**
Wealth index	Rich (ref)			
	Middle	0.42	0.16	0.01**
	Poor	0.33	0.15	0.02**
Length of stay	New migrants (ref)			
	Missing	-0.54	0.22	0.01*
	Old migrants	-0.31	0.22	0.16
Health insurance	No (ref)			
	Yes	-0.12	0.14	0.40
Catastrophic health expenditure	No (ref)			
	Yes	0.61	0.21	0.01**
Food security	Enough (ref)			
	Not enough	0.38	0.17	0.02**
Income generating activity	Employed (ref)			
	Missing/Not applicable	0.06	0.15	0.67
	Own business	-0.02	0.25	0.92
Highest Education	None (ref)			
	Educated	-0.18	0.26	0.49
	Don't know/not applicable	-0.10	0.25	0.68
Religion	Catholic (ref)			
	Protestant	-0.20	0.25	0.42
	Other	-0.02	0.15	0.91
Disability	Missing/not applicable (ref)			
	No	0.18	0.25	0.93
	Yes	0.35	0.56	0.52
Women age	18 years and below (ref)			
	19 – 49 years	-0.48	0.23	0.04**
Women education	Primary (ref)			
	Post primary	-0.06	0.13	0.60
	None	-15.04	453.47	0.97
Tenure	No rent paid (ref)			
	Pays rent	-0.07	0.26	0.78

. ** P<.05: significant

Cough

Table a5: Distribution of socio determinants characteristics for cough in in Nairobi Cross-sectional survey 2012

Variable	Categories	Cough		
		Yes	No	
Children demographic characteristics				
Age	1 year and less (infants)	153 (26.6%)	423 (73.4%)	576 (33.5%)
	2 -5 years	277 (24.2%)	868 (67.2%)	1,145 (66.5%)
Sex	Male	202 (24.0%)	638 (76.0%)	840 (48.8%)
	Female	228 (25.9%)	653 (74.1%)	881 (51.2%)
Women characteristics				
Age	18 years and under	29 (26.9%)	79 (73.1%)	108 (6.3%)
	19 years and above	401 (24.9%)	1,212 (75.1%)	1,613 (93.7%)
Education	Primary	222(25.4%)	651(74.6%)	873 (50.7%)
	Post primary	205 (25.1%)	613 (74.9%)	818 (47.5%)
	None	3 (10.0%)	27 (90.0%)	30 (17.0%)
Head of household demographic characteristics				
Gender	Female	50 (22.5%)	172 (77.5%)	222 (12.9%)
	Male	380 (25.4%)	1,119 (74.5%)	1,499 (87.1%)
Ethnicity	Kamba	44(15.0%)	250 (85.0%)	294 (17.1%)
	Kikuyu	70 (21.4%)	257 (78.6%)	327 (19.0%)
	Luhya	144 (30.0%)	336 (70.0%)	480 (27.9%)
	Luo	96 (27.7%)	250 (42.3%)	346 (20.1%)
	Other	76 (17.7%)	198 (72.3%)	274 (15.9%)
Age	17 – 24years	35 (25.9%)	100 (74.1%)	135 (7.8%)
	25 -34 years	264 (26.9%)	719 (73.1%)	983 (57.1%)
	35 years above	131 (21.7%)	472 (78.3%)	603 (35.0%)
education	None	26 (21.5%)	95 (78.5%)	121 (7.0%)
	educated	263 (25.1%)	784 (74.9%)	1,047 (60.8%)
	Don't know and not applicable	141 (27.4%)	412 (74.5%)	553 (32.1%)
Social Structure				
Wealth index	Rich	188 (22.2%)	658 (77.8%)	846 (49.2%)
	Middle	108 (27.9%)	279 (72.1%)	387 (22.5%)
	Poor	134 (27.5%)	354 (72.5%)	488 (28.4%)
Length of stay	New migrants	50 (34.7%)	94 (65.3%)	144 (8.4%)
	Old migrants	162 (23.9%)	515 (76.1%)	677 (39.3%)
	Missing/Not applicable	218 (24.2%)	682 (75.8%)	900 (52.3%)
Household religion	Catholic	101 (24.05%)	319 (76.0%)	420 (24.4%)
	Protestant	293 (25.8%)	842 (74.2%)	1,135 (66.0%)
	Other	36 (21.7%)	130 (78.3%)	166 (9.6%)
Disability	No	390 (25.0%)	1,173 (75.0%)	1,563 (90.8%)
	Yes	8 (33.3%)	16 (66.7%)	24 (1.4%)
	Missing/Not applicable	32 (23.9%)	102 (76.1%)	134 (7.8%)
Tenure	No rent paid	20 (19.4%)	83 (80.6%)	103 (60.0%)
	Pays rent	410 (25.3%)	1,208 (74.7%)	1,208 (74.7%)
Food security	enough	87 (23.5%)	284 (76.5%)	371 (21.6%)
	not enough	343 (25.4%)	1,007 (74.6%)	1,350 (78.4%)
Income generating activity	Employed	120 (25.3%)	355 (74.7%)	475 (27.6%)
	Own business	38 (24.4%)	118 (75.6%)	156 (9.1%)
	Not applicable	272 (25.0%)	818 (75.0%)	1,090 (60.5%)
Health Insurance	Yes	130 (26.1%)	368 (73.9%)	498 (28.9%)
	No	300 (24.5%)	923 (75.5%)	1,223 (71.1%)
health catastrophic costs (40% threshold)	No	380 (24.0%)	1,201 (76.0%)	1,581 (91.9%)
	Yes	50 (35.7%)	90 (64.3%)	140 (7.7%)
Total		430 (25.0%)	1,291 (75.0%)	1,721 (100.0%)

Table a6: Univariate analyses for cough in Nairobi Cross-sectional survey 2012

		Coefficient	Standard Error	P-value
Intercept	Category (reference)			
Child age	1 year and less (ref)			
	2 -5 years	-0.13	0.12	0.30
Child Sex	Female (ref)			
	Male	-0.10	0.11	0.38
Head of household sex	Female (ref)			
	Male	0.16	0.17	0.36
Head of household age	17 – 24 (ref)			
	25 -34	0.05	0.21	0.82
	35 and above	-0.23	0.22	0.29
Head of household ethnicity	Kamba (ref)			
	Kikuyu	0.44	0.21	0.04*
	Luhya	0.89	0.19	0.01**
	Luo	0.78	0.20	0.01**
Wealth index	Rich (ref)			
	Middle	0.30	0.14	0.03*
	Poor	0.28	0.13	0.03*
	Other	0.78	0.21	0.01**
Length of stay	New migrants (ref)			
	Missing	-0.51	0.19	0.01**
	Old migrants	-0.53	0.20	0.07**
Health insurance	No (ref)			
	Yes	0.08	0.12	0.49
Catastrophic health expenditure	No (ref)			
	Yes	0.56	0.18	0.01**
Food security	Enough (ref)			
	Not enough	0.11	0.14	0.44
Income generating activity	Employed (ref)			
	Missing/Not applicable	-0.02	0.13	0.90
	Own business	-0.05	0.21	0.82
Highest Education	None (ref)			
	educated	0.22	0.24	0.36
	Don't know/not applicable	0.20	0.23	0.38
Religion	Catholic (ref)			
	Protestant	-0.13	0.22	0.54
	Other	0.09	0.13	0.48
Disability	No (ref)			
	Missing/not applicable	-0.05	0.21	0.78
	Yes	0.40	0.43	0.35
Women age	18 years and below (ref)			
	19 – 49 years	-0.10	0.22	0.64
Women education	Primary (ref)			
	Post primary	-0.02	0.11	0.86
	None	-1.12	0.61	0.07
Tenure	No rent paid (ref)			
	Pays rent	0.34	0.25	0.18

. ** P<.05: significant

Table a7: Fixed effects, strata variance, area under the curve, variance partition coefficient and proportional change of variance for diarrhea (model 1 and 2) in Nairobi Cross-sectional Survey 2012 – sensitivity analysis.

	Category (reference)	Model 1		Model 2	
		Odd Ratio	95% CI	Odd Ratio	95% CI
Intercept		0.18**	(0.14, 0.22)	0.03	(0.01, 0.11)
Child age	1 year and less (ref)				
	2 -5 years			0.78	(0.54, 1.15)
Ethnic group	Kamba (ref)				
	Kikuyu			0.88	(0.44, 1.15)
	Luhya			1.94**	(1.10, 3.56)
	Luo			1.35	(0.74, 2.52)
	Other			1.03	(0.53, 1.99)
Wealth index	Rich (ref)				
	Middle			1.64**	(1.04, 2.60)
	Poor			1.09	(0.96, 1.97)
Length of stay	New migrants (ref)				
	Missing/not applicable			0.65	(0.40, 1.05)
	Old migrants			0.73**	(0.45, 1.21)
Health insurance	No (ref)				
	Yes			0.70**	(0.49, 0.96)
Religion	Catholic (ref)				
	Protestants			1.37	(0.90, 2.13)
	Other/not applicable			0.90	(0.36, 2.13)
Food security	Enough (ref)				
	Not enough			1.56	(0.97, 2.56)
Tenure	No rent (ref)				
	Rented			2.07	(0.79, 6.50)
Education	none (ref)				
	educated			2.44**	(1.27, 5.04)
Strata variance		0.40		0.32	
Strata N		491		491	
Individual		1,180		1,738	
AUC -ROC		87.17%		76.73%	
VPC		11.26%		9.57%	
PCV				16.59%	

95% CI: 95% credible interval; **: significant odds ratio; AUC-ROC: area under the receiver operating characteristic curve; VPC: variance partition coefficient; PCV: proportional change in variance

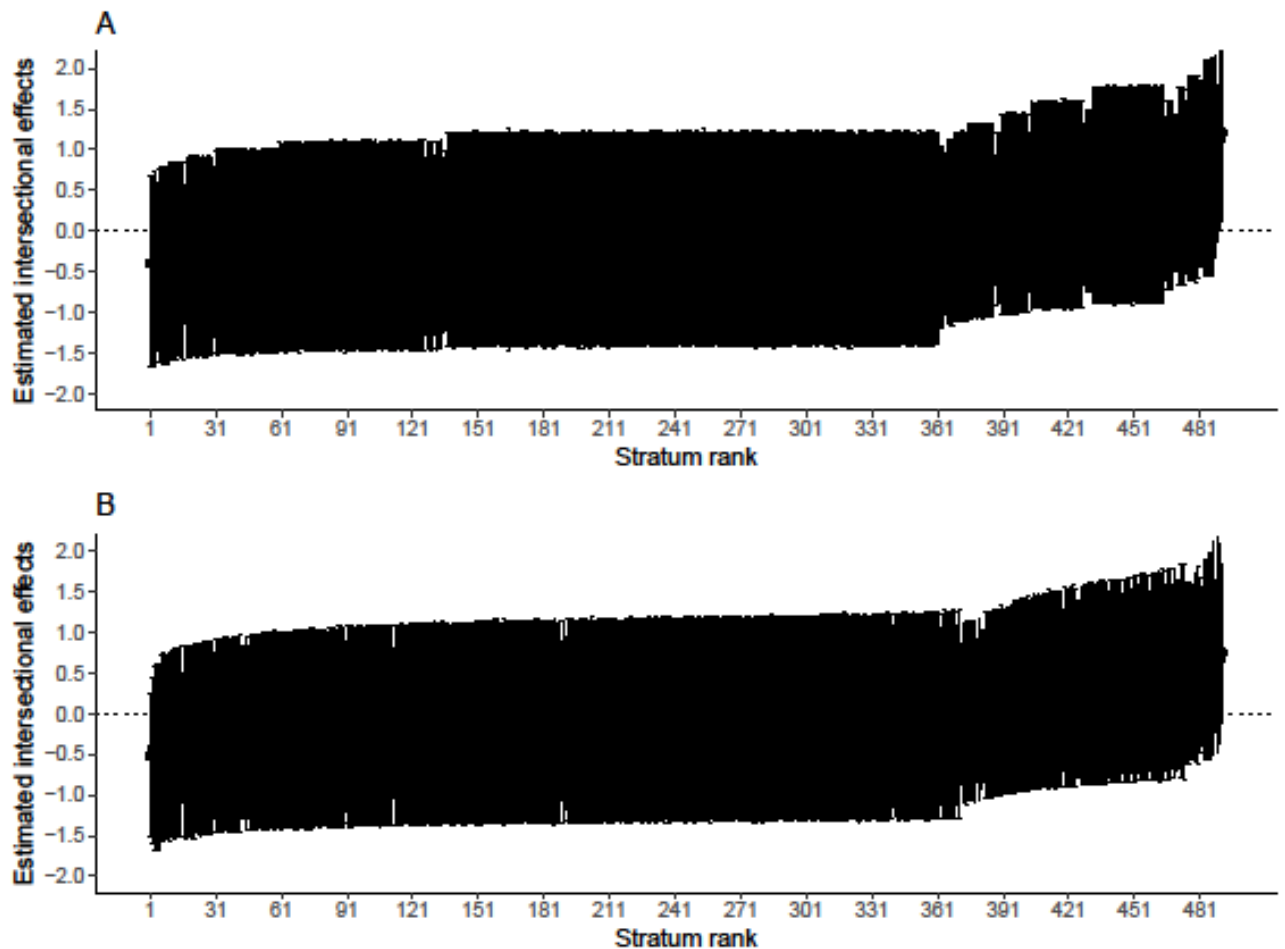


Figure a1: Estimated intersectional effects estimates and their corresponding 95% credible intervals (CI) for each stratum for diarrhea ranked from lowest to highest: model 1 (panel A) and model 2 (panel B) – sensitivity analysis when “Don’t know and not applicable” in education variable are included in model.

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