Supplementary tables

Supplementary Table 1: 0-28 Model with all interaction terms

Cox regression -- Breslow method for ties

No. of subjects	= 6,724	Number of obs	= 6,741
No. of failures	= 61		
Time at risk	= 506.6338125		
		Wald chi2(18)	= 204.72
Log pseudolikelihood	= -459.8319	Prob > chi2	= 0.0000

(Std. Err. adjusted for 5,380 clusters in mothid)

_t	Haz. Ratio	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
age_mother_at_birth						
18-35	.4106549	.2778436	-1.32	0.188	.1090349	1.546638
36+	.5810692	.6076774	-0.52	0.604	.0748253	4.512399
anysiblingdied						
Yes	1.402786	1.479455	0.32	0.748	.1775284	11.08447
birth_order						
2nd, 3rd, or 4th	.3309659	.2082551	-1.76	0.079	.0964224	1.136027
5th or higher	.4217084	.3044188	-1.20	0.232	.1024602	1.735679
breastf						
No	23.45411	11.29785	6.55	0.000	9.124202	60.28967
distance_nearest_phcvillage	1.288018	.2404281	1.36	0.175	.8933718	1.856999
setting						
Rural	2.345062	2.428981	0.82	0.411	.3079584	17.85733
age_mother_at_birth#setting						
18-35#Rural	1.929694	1.806918	0.70	0.483	.3079244	12.09296
36+#Rural	.8402674	1.126632	-0.13	0.897	.0606911	11.63349
anysiblingdied#setting						
Yes#Rural	1.872536	2.149766	0.55	0.585	.1973366	17.76858
birth_order#setting						
2nd, 3rd, or 4th#Rural	2.017581	1.601105	0.88	0.376	.4259294	9.557062
5th or higher#Rural	2.840176	2.533274	1.17	0.242	.4944502	16.31428
breastf#setting						
No#Rural	1.047615	.6222016	0.08	0.938	.3270803	3.355437
setting#c.distance_nearest_phcvillage						
Rural	.6657444	.15237	-1.78	0.075	.4251006	1.042614
twin						
Multiple pregnancy	1.998018	.9721789	1.42	0.155	.7698905	5.185253
birthplace						
Health Centre/Clinic	1.030651	.4616987	0.07	0.946	.428352	2.479834
Someone's home	.6003629	.2535506	-1.21	0.227	.2623777	1.373728

Supplementary Table 2: 28-365 Model with all interaction terms

Cox regression -- Breslow method for ties

No. of subjects	= 6,622	Number of obs	= 6,791
No. of failures	= 60		
Time at risk	= 5352.740589		
		Wald chi2(13)	= 76.39
Log pseudolikelihood	= -501.59382	Prob > chi2	= 0.0000

(Std. Err. adjusted for 5,355 clusters in mothid)

_t	Haz. Ratio	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
anysiblingdied						
Yes	1.309044	.6945068	0.51	0.612	.4627577	3.703011
twin						
Multiple pregnancy	2.390503	1.592015	1.31	0.191	.6480532	8.817958
Season						
Harvest (Jan-Jun)	2.9464	1.302798	2.44	0.015	1.238566	7.00913
ModeDel						
Caesarean section	3.552184	2.985144	1.51	0.131	.6841833	18.44245
breastf						
No	3.790784	2.574703	1.96	0.050	1.001365	14.35046
distance_nearest_phcvillage	1.136507	.1327996	1.10	0.273	.903879	1.429007
setting						
Urban and peri-urban	.8228671	.4729503	-0.34	0.734	.2667435	2.538432
anysiblingdied#setting						
Yes#Urban and peri-urban	2.611223	1.842489	1.36	0.174	.6549873	10.4101
twin#setting						
Multiple pregnancy#Urban and peri-urban	1.041586	.8837313	0.05	0.962	.1974672	5.494083
Season#setting						
Harvest (Jan-Jun)#Urban and peri-urban	.4469618	.2546263	-1.41	0.157	.1463376	1.365164
ModeDel#setting						
Caesarean section#Urban and peri-urban	.592514	.6569566	-0.47	0.637	.0674403	5.205686
breastf#setting						
No#Urban and peri-urban	.9004025	.7763412	-0.12	0.903	.1661565	4.879284
setting#c.distance_nearest_phcvillage						
Urban and peri-urban	1.145048	.178553	0.87	0.385	.8435123	1.554375

Supplementary Table 3: Multivariable analysis for period 7 to 365 days

When we excluded the first seven days of life from our analyses BCG vaccination in the first week (bcgU2D), twin pregnancy and the interaction term between setting and distance to nearest village with PHC were no longer statistically significant.

Cox regression -- Breslow method for ties

No. of subjects	= 6,724	Number of obs	= 13,383
No. of failures	= 85		
Time at risk	= 5709.571526		
		Wald chi2(15)	= 105.53
Log pseudolikelihood	= -707.12124	Prob > chi2	= 0.0000

(Std. Err. adjusted for 5,403 clusters in mothid)

_t	Haz. Ratio	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
age_mother_at_birth						
18-35	1.593799	.9900697	0.75	0.453	.4717007	5.385188
36+	1.633295	1.162793	0.69	0.491	.4046395	6.592666
anysiblingdied						
Yes	2.999753	1.079843	3.05	0.002	1.4814	6.074335
birth_order						
2nd, 3rd, or 4th	.6871497	.2092242	-1.23	0.218	.378335	1.248034
5th or higher	.5772352	.1954021	-1.62	0.105	.2973098	1.120718
twin						
Multiple pregnancy	2.010986	.7479194	1.88	0.060	.9701362	4.168551
Season						
Harvest (Jan-Jun)	1.783485	.3977714	2.59	0.009	1.151929	2.761298
birthplace						
Health Centre/Clinic	.8835037	.3649599	-0.30	0.764	.3931805	1.985294
Someone's home	.6339192	.2269994	-1.27	0.203	.3142159	1.278909
ModeDel						
Caesarean section	2.160295	1.089787	1.53	0.127	.8037372	5.806467
breastf						
No	4.698984	1.457048	4.99	0.000	2.558973	8.628638
bcgU2D						
No	2.363036	1.426602	1.42	0.154	.7237465	7.715322
setting						
Rural	3.039043	1.342241	2.52	0.012	1.278764	7.222429
distance_nearest_phcvillage	1.293153	.1288549	2.58	0.010	1.063734	1.572052
setting#c.distance_nearest_phcvillage						
Rural	.8066827	.1140272	-1.52	0.129	.6114805	1.064199

Supplementary Table 4: 0-28 Model after removing birth order from the model instead of spacing to previous sibling (due to correlation between these variables)

When we removed the variable birth order from the model instead of spacing to previous sibling, we obtain similar results, with the exception of death of any sibling, which wasn't (HR 2.07, 95% CI 0.83-5.20).

Cox regression -- Breslow method for ties

No. of subjects	= 6,718	Number of obs	= 6,735
No. of failures	= 61		
Time at risk	= 506.1738535		
		Wald chi2(13)	= 235.05
Log pseudolikelihood	= -461.0159	Prob > chi2	= 0.0000

(Std. Err. adjusted for 5,379 clusters in mothid)

_t	Haz. Ratio	Robust Std. Err.	z	P>|z|	[95% Conf.	Interval]
age_mother_at_birth						
18-35	.6972136	.3306176	-0.76	0.447	.27525	1.766055
36+	.7008958	.4410081	-0.56	0.572	.2042076	2.405664
anysiblingdied						
Yes	2.074971	.9739615	1.56	0.120	.8269328	5.206595
older_sibling_spacing_cat						
18-36 months	.380302	.3971584	-0.93	0.355	.0491132	2.94482
>36 months	.3736519	.4041442	-0.91	0.363	.0448541	3.112663
Died before index birth	1.426484	1.698067	0.30	0.765	.1383593	14.70705
No elder sibling	.6774046	.6890903	-0.38	0.702	.0922493	4.974317
twin						
Multiple pregnancy	2.105944	.9199684	1.70	0.088	.8945502	4.957798
birthplace						
Health Centre/Clinic	.9777881	.4148753	-0.05	0.958	.4256769	2.245998
Someone's home	.543823	.2250621	-1.47	0.141	.2416498	1.223852
breastf						
No	23.28792	6.646369	11.03	0.000	13.31061	40.74399
setting						
Rural	4.187085	1.810379	3.31	0.001	1.79422	9.771196
distance_nearest_phcvillage	.9845242	.1034798	-0.15	0.882	.8012345	1.209743

Supplementary Table 5: 0-365 Model after removing distance to nearest PHC from the model instead of PHC (due to correlation between these variables)

When we removed the variable distance to nearest PHC from the model instead of PHC, we obtain similar results, with the exception of setting, which wasn't significant any more.

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Cox regression -- Breslow method for ties

No. of subjects      =        6,794             Number of obs    =      13,454
No. of failures      =          119
Time at risk         =   5830.09514
                                                Wald chi2(14)    =      188.42
Log pseudolikelihood =    -966.0224             Prob > chi2      =      0.0000

                                  (Std. Err. adjusted for 5,430 clusters in mothid)
------------------------------------------------------------------------------
                             |               Robust
                          _t | Haz. Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-----------------------------+------------------------------------------------
          age_mother_at_birth |
                        18-35 |   1.050819   .4669088     0.11   0.911       .43986    2.510389
                          36+ |    .841253   .4589276    -0.32   0.751     .2887832    2.450651
                              |
                anysiblingdied |
                          Yes |   2.800424   .8352057     3.45   0.001     1.560843    5.024448
                              |
                  birth_order |
             2nd, 3rd, or 4th |   .6769093   .1764719    -1.50   0.134     .4060881    1.128342
                5th or higher |   .7286045   .2095695    -1.10   0.271      .414629    1.280336
                              |
                         twin |
            Multiple pregnancy |   1.977903   .6684072     2.02   0.044     1.019887    3.835815
                              |
                       Season |
              Hungry (Jul-Dec) |   .6532579   .1222619    -2.28   0.023     .4526642    .9427427
                              |
                   birthplace |
          Health Centre/Clinic |   1.061084   .3627979     0.17   0.862     .5428921    2.073893
             Someone's home |   .7341427   .2279444    -1.00   0.320     .3994757    1.349182
                              |
                      ModeDel |
             Caesarean section |   1.389637   .7355209     0.62   0.534     .4924577    3.921334
                              |
                      breastf |
                          Yes |   .0945526   .0216868   -10.28   0.000     .0603171     .14822
                              |
                       bcgU2D |
                          Yes |   .2916711   .1748233    -2.06   0.040      .090094    .9442583
                              |
                      setting |
          Urban and peri-urban |   .4998331   .1866625    -1.86   0.063     .2404053    1.039216
                              |
                          PHC |
                          Yes |   1.148948   .3252202     0.49   0.624     .6597203     2.00097
                              |
                  setting#PHC |
Urban and peri-urban#Yes      |          1  (empty)
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