

Supplementary Material Table 1. Random effects logistic regression analysis of progression to next birth based on parents' status

	OR	SE
Mother (ref = dead)		
alive, not co-resident	1.763**	0.291
co-resident	1.587^	0.384
Mother x Number of living children		
num living children x mother alive	0.688***	0.072
num living children x mother co-resident	0.727^	0.122
Mother x Number of living children squared		
num living children squared x mother alive	1.054***	0.015
num living children squared x mother co-resident	1.045^	0.026
Father (ref = dead)		
alive, not co-resident	1.096	0.156
co-resident	1.638^	0.419
Father x Number of living children		
num living children x father alive	0.947	0.086
num living children x father co-resident	0.652*	0.132
Father x Number of living children squared		
num living children squared x father alive	1.008	0.013
num living children squared x father co-resident	1.05	0.035
Mother-in-law (ref = dead)		
mother-in-law alive	0.997	0.147
mother-in-law co-resident	1.961*	0.51
Mother-in-law x number of living children		
num living children x mother-in-law alive	1.032	0.096
num living children x mother-in-law co-resident	0.612**	0.114
Mother-in-law x number of living children squared		
num living children squared x mother-in-law alive	0.997	0.013
num living children squared x mother-in-law co-resident	1.083**	0.031
Father-in-law (ref = dead)		
father-in-law alive	1.53**	0.205
father-in-law co-resident	0.973	0.290
Father-in-law x number of living children		
num living children x father-in-law alive	0.758**	0.067
num living children x father-in-law co-resident	0.786	0.202
Father-in-law x number of living children squared		
num living children squared x father-in-law alive	1.03*	0.013
num living children squared x father-in-law co-resident	1.069	0.048
Number of living children	0.978	0.11
Number of living children squared	0.993	0.015

^ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. Model includes married women aged 15-45 at each wave (with information at the next wave on whether a birth occurred in the interval). $n = 12177$ with 6444 unique individuals. OR = odds ratio, SE = standard error. Controls for: region, religion, urban/rural residence, education, age (categorized in 5 year age groups), age at first marriage, whether respondent has been married more than once, a wealth indicator, wave, and interactions between wealth, number of living children, and number of living children squared.

Supplementary Material Table 2. Random effects logistic regression of parental geographic proximity on progression to next birth by the following wave

	Mother		Father		Mother-in-law		Father-in-law	
	OR	SE	OR	SE	OR	SE	OR	SE
Parental location (ref = in village)								
district	0.921	0.082	1.037	0.103	1.124	0.113	1.035	0.122
province	0.881	0.101	0.915	0.115	1.069	0.134	1.145	0.173
out of province	0.902	0.107	0.941	0.125	1.393**	0.177	1.424*	0.219
region								
Java	0.676***	0.068	0.741**	0.084	0.645***	0.07	0.681**	0.088
Bali & Nusa Tenggara	1.012	0.158	0.989	0.171	1.194	0.212	1.094	0.221
Kalimantan	0.611**	0.114	0.643*	0.137	0.548**	0.107	0.583*	0.138
Sulawesi	1.01	0.197	0.887	0.195	0.959	0.196	0.809	0.201
religion								
Protestant	0.991	0.191	0.956	0.223	1.212	0.275	1.167	0.336
Catholic	0.734	0.235	0.709	0.253	0.968	0.364	1.053	0.437
Hindu	0.583**	0.116	0.591*	0.126	0.493**	0.113	0.609^	0.16
Buddhist	0.982	0.527	0.419	0.287	0.318	0.244	0.243	0.257
Other	0.661	1.075	1.75	3.444	1.068	1.729	1.013	1.708
Rural	0.936	0.079	0.937	0.089	0.88	0.081	0.991	0.108
Education (ref = none)								
Primary	0.971	0.136	0.837	0.135	0.972	0.154	1.047	0.21
Jr. Secondary	1.07	0.179	0.821	0.155	1.065	0.199	1.124	0.261
Sr. Secondary	1.1	0.196	0.994	0.199	1.206	0.236	1.408	0.343
Tertiary	1.394	0.328	1.151	0.303	1.301	0.331	1.773^	0.559
Age (cat = 15-19)								
20-24	0.58*	0.128	0.737	0.159	0.783	0.173	0.784	0.185
25-29	0.416***	0.093	0.491**	0.109	0.563*	0.127	0.64^	0.157
30-34	0.211***	0.049	0.238***	0.056	0.354***	0.084	0.364***	0.095
35-39	0.07***	0.018	0.08***	0.021	0.096***	0.025	0.112***	0.033
40-45	0.025***	0.007	0.026***	0.008	0.035***	0.011	0.034***	0.013
Age at first marriage	1.038***	0.011	1.041**	0.013	1.021^	0.012	1.008	0.015
Married more than once	1.171	0.149	0.988	0.15	1.186	0.162	1.525*	0.262
Wealth indicator	1.357**	0.128	1.232*	0.13	1.427**	0.149	1.407**	0.169
Number of living children	0.597***	0.044	0.645***	0.052	0.589***	0.049	0.502***	0.05
Wealth * living children	0.802***	0.049	0.835*	0.059	0.779**	0.056	0.744***	0.063
Number of living children squared	1.063***	0.01	1.055***	0.01	1.058***	0.011	1.074***	0.013
Wealth * living children squared	1.018*	0.009	1.019^	0.011	1.023*	0.011	1.024^	0.013
Wave (ref = 1993)								
2000	1.595***	0.117	1.869***	0.158	1.674***	0.136	1.894***	0.189
Constant	4.47***	1.523	3.169**	1.18	4.039***	1.479	4.738***	2.069
n	5169 (3994)		4078 (3249)		4341 (3451)		3162 (2605)	

^ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. Model includes married women aged 15-45 at each wave (with information at the next wave on whether a birth occurred in the interval). OR = odds ratio, SE = standard error. n reports sample size with number of unique individuals in parentheses.

Supplementary Material Table 3. Random effects logistic regression predicting progression to a birth based on face-to-face contact frequency

	Mother		Father		Mother-in-law		Father-in-law	
	OR	SE	OR	SE	OR	SE	OR	SE
Contact Frequency (ref = weekly)								
Never	1.008	0.174	0.893	0.147	1.125	0.195	1.223	0.243
Yearly	0.964	0.081	0.876	0.081	1.068	0.099	1.123	0.123
Monthly	1.154^	0.093	1.17^	0.105	1.084	0.100	1.018	0.115
region								
Java	0.700***	0.06	0.719**	0.071	0.617***	0.057	0.605***	0.068
Bali & Nusa Tenggara	1.049	0.143	0.935	0.139	0.942	0.14	0.871	0.151
Kalimantan	0.628**	0.102	0.647*	0.119	0.541***	0.092	0.518**	0.106
Sulawesi	1.109	0.186	1.037	0.196	1.063	0.182	0.905	0.194
religion								
Protestant	0.998	0.166	1.039	0.21	1.233	0.238	1.119	0.279
Catholic	0.757	0.216	0.839	0.259	0.963	0.29	1.043	0.357
Hindu	0.615**	0.106	0.652*	0.119	0.622*	0.121	0.773	0.175
Buddhist	0.832	0.402	0.384	0.235	0.469	0.314	0.212	0.213
Other	0.234	0.316	0.296	0.418	1.379	1.341	0.46	0.481
Rural	0.941	0.067	0.914	0.073	0.839*	0.064	0.876	0.081
Education (ref = none)								
Primary	0.973	0.116	0.768^	0.104	1.000	0.133	0.892	0.15
Jr. Secondary	1.016	0.145	0.792	0.127	1.056	0.166	0.937	0.183
Sr. Secondary	1.062	0.16	0.914	0.154	1.185	0.194	1.142	0.233
Tertiary	1.191	0.24	0.978	0.219	1.345	0.289	1.466	0.391
Age (cat = 15-19)								
20-24	0.715^	0.124	0.795	0.138	0.731^	0.128	0.797	0.15
25-29	0.548**	0.097	0.578**	0.104	0.563**	0.101	0.676*	0.133
30-34	0.294***	0.054	0.305***	0.058	0.351***	0.067	0.382***	0.081
35-39	0.115***	0.023	0.123***	0.026	0.123***	0.025	0.144***	0.034
40-45	0.045***	0.01	0.048***	0.012	0.051***	0.012	0.058***	0.016
Age at first marriage	1.034***	0.009	1.029**	0.011	1.024*	0.01	1.011	0.012
Married more than once	1.117	0.122	0.974	0.128	1.346*	0.156	1.515**	0.224
Wealth indicator	1.323**	0.107	1.242*	0.111	1.432***	0.123	1.399**	0.138
Number of living children	0.563***	0.037	0.607***	0.044	0.569***	0.041	0.487***	0.042
Wealth * living children	0.82***	0.043	0.846**	0.052	0.792***	0.046	0.769***	0.053
Number of living children squared	1.072***	0.009	1.062***	0.009	1.062***	0.01	1.075***	0.011
Wealth * living children squared	1.018*	0.008	1.017^	0.009	1.019*	0.009	1.018^	0.011
Wave (ref = 1993)	0***	0	0***	0	0***	0	0***	0
1997	0.703***	0.052	0.727***	0.061	0.696***	0.057	0.644***	0.064
2000	1.633***	0.117	1.92***	0.156	1.669***	0.131	1.918***	0.184
Constant	3.379***	0.943	3.733***	1.163	4.151***	1.255	6.159***	2.24
n	7595 (4273)		5915 (3477)		6405 (3785)		4601 (2838)	

^ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. Model includes married women aged 15-45 at each wave (with information at the next wave on whether a birth occurred in the interval). OR = odds ratio, SE = standard error. n reports sample size with number of unique individuals in parentheses.

Supplementary Material Table 4. Random effects logistic regression predicting progression to a birth based on help received from parents and parents-in-law

	Mother		Father		Mother-in-law		Father-in-law	
	OR	SE	OR	SE	OR	SE	OR	SE
Help (ref = no help received)								
Received help	1.415**	0.151	1.228^	0.144	1.902***	0.308	1.505*	0.278
Received help * number living	0.923*	0.035	0.964	0.043	0.745*	0.087	0.763^	0.106
Received help * number children squared					1.038*	0.018	1.055*	0.023
region								
Java	0.688***	0.06	0.715**	0.071	0.593***	0.055	0.583***	0.066
Bali & Nusa Tenggara	1.013	0.139	0.925	0.14	0.857	0.128	0.816	0.143
Kalimantan	0.621**	0.1	0.641*	0.119	0.544***	0.091	0.528**	0.108
Sulawesi	1.087	0.182	1.031	0.196	0.985	0.168	0.858	0.182
religion								
Protestant	0.991	0.165	1.031	0.209	1.164	0.226	1.184	0.296
Catholic	0.778	0.223	0.807	0.255	0.949	0.285	1.041	0.358
Hindu	0.644*	0.111	0.667*	0.123	0.647*	0.126	0.773	0.175
Buddhist	0.747	0.372	0.405	0.248	0.47	0.312	0.209	0.211
Other	0.232	0.312	0.315	0.449	1.325	1.268	0.443	0.458
Rural	0.935	0.066	0.917	0.073	0.82**	0.062	0.852^	0.078
Education (ref = none)								
Primary	0.956	0.114	0.759*	0.104	0.974	0.129	0.874	0.147
Jr. Secondary	0.99	0.142	0.778	0.125	1.036	0.162	0.916	0.179
Sr. Secondary	1.036	0.157	0.904	0.153	1.161	0.19	1.121	0.229
Tertiary	1.14	0.23	0.963	0.218	1.26	0.27	1.415	0.379
Age (cat = 15-19)								
20-24	0.732^	0.127	0.809	0.142	0.786	0.138	0.829	0.156
25-29	0.563**	0.099	0.589**	0.107	0.613**	0.111	0.714^	0.142
30-34	0.306***	0.056	0.312***	0.06	0.394***	0.076	0.41***	0.087
35-39	0.121***	0.024	0.126***	0.026	0.14***	0.029	0.156***	0.037
40-45	0.048***	0.01	0.05***	0.012	0.059***	0.014	0.063***	0.018
Age at first marriage	1.035***	0.009	1.029**	0.011	1.024*	0.01	1.01	0.012
Married more than once	1.121	0.123	0.973	0.129	1.366**	0.157	1.549**	0.228
Wealth indicator	1.331***	0.108	1.254*	0.113	1.451***	0.126	1.441***	0.143
Number of living children	0.589***	0.04	0.614***	0.046	0.64***	0.051	0.518***	0.049
Wealth * living children	0.818***	0.043	0.842**	0.052	0.793***	0.047	0.756***	0.052
Number of living children squared	1.07***	0.008	1.062***	0.009	1.047***	0.011	1.063***	0.012
Wealth * Number of living children squared	1.018*	0.008	1.018^	0.009	1.019*	0.009	1.02^	0.011
Wave (ref = 1993)								
1997	0.685***	0.051	0.716***	0.061	0.678***	0.056	0.618***	0.062
2000	1.56***	0.114	1.867***	0.155	1.579***	0.125	1.84***	0.177
Constant	2.938***	0.826	3.484***	1.095	3.314***	1.017	5.966***	2.197
nn	7552 (4263)		5903 (3472)		6373 (3771)		4595 (2833)	

^ p < .10, * p < .05, ** p < .01, *** p < .001. Model includes married women aged 15-45 at each wave (with information at the next wave on whether a birth occurred in the interval). OR = odds ratio, SE = standard error. n reports sample size with number of unique individuals in parentheses.

Supplementary Material Table 5. Random effects logistic regression predicting having a birth by the next wave based on help received, geographic proximity and face-to-face contact frequency with parents and parents-in-law.

	Mother		Father		Mother-in-law		Father-in-law	
	OR	SE	OR	SE	OR	SE	OR	SE
Received help	1.16*	0.086	1.109	0.094	1.423***	0.121	1.258**	0.124
Contact frequency (ref = none)								
Yearly	0.974	0.208	0.896	0.183	0.952	0.204	0.963	0.236
Monthly	0.996	0.227	1.145	0.253	1.192	0.281	1.031	0.282
Weekly	0.857	0.199	1.026	0.232	1.112	0.267	1.077	0.295
Geographic Proximity (ref = out of province)								
In province	1.001	0.143	0.948	0.152	0.685*	0.108	0.765	0.144
in district	1.094	0.158	1.023	0.169	0.691*	0.117	0.639*	0.127
in village	1.261	0.205	1.001	0.186	0.608**	0.111	0.620*	0.134
Number of living children	0.708***	0.048	0.765***	0.058	0.737***	0.057	0.622***	0.056
Number of living children	1.043***	0.009	1.036***	0.010	1.032**	0.010	1.049***	0.011
Wealth indicator	1.440***	0.133	1.342**	0.141	1.539***	0.161	1.570***	0.185
Wealth indicator * Number of	0.780***	0.046	0.799**	0.056	0.774***	0.055	0.708***	0.057
Wealth indicator * Number of	1.021*	0.009	1.023*	0.011	1.022*	0.011	1.031*	0.012
Age at first marriage	1.050***	0.011	1.056***	0.013	1.039**	0.012	1.024^	0.014
Married more than once	1.176	0.145	1.067	0.158	1.247^	0.166	1.464*	0.238
Rural	0.924	0.076	0.913	0.086	0.877	0.079	0.986	0.104
Education (ref = none)								
Primary	0.956	0.129	0.821	0.130	0.862	0.134	0.911	0.174
Jr. Secondary	1.030	0.167	0.775	0.144	0.920	0.169	0.926	0.207
Sr. Secondary	1.105	0.191	0.983	0.193	1.062	0.205	1.182	0.276
Tertiary	1.407	0.320	1.114	0.287	1.127	0.280	1.493	0.447
Age	0.855***	0.008	0.848***	0.009	0.857***	0.009	0.870***	0.010
Region (ref = Sumatra)								
Java	0.684***	0.067	0.747*	0.085	0.619***	0.067	0.672**	0.084
Bali & Nusa Tenggara	0.94	0.143	0.916	0.156	1.060	0.186	1.004	0.195
Kalimantan	0.609**	0.111	0.649*	0.137	0.540**	0.104	0.566*	0.130
Sulawesi	1.006	0.190	0.859	0.186	0.912	0.184	0.741	0.741
Religion (ref = Muslim)								
Protestant	0.988	0.182	0.955	0.218	1.173	0.264	1.196	0.325
Catholic	0.801	0.249	0.830	0.293	0.975	0.351	0.997	0.382
Hindu	0.607**	0.117	0.621*	0.130	0.499**	0.113	0.622^	0.156
Buddhist	0.749	0.404	0.400	0.270	0.330	0.250	0.250	0.263
Other	0.596	0.936	1.348	2.516	0.815	1.269	0.818	1.278
Wave (ref = 1993)								
2000	1.536***	0.113	1.802***	0.153	1.566***	0.128	1.783***	0.173
Constant	63.617***	24.228	66.419***	28.189	105.956***	44.695	97.914***	49.053
n	5110 (3957)		4025 (3209)		4280 (3410)		3115 (2565)	

^ p < .10, * p < .05, ** p < .01, *** p < .001. Model includes married women aged 15-45 at each wave (with information at the next wave on whether a birth occurred in the interval). OR = odds ratio, SE = standard error. n reports sample size with number of unique individuals in parentheses.

Supplementary Material Table 6: Poisson regression predicting the number of living children by postmarital residence

	Coef.	Std. Err.	P>z
Post-marital residence (ref = neolocal)			
Matrilocal	0.133	0.042	0.002
Patrilocal	0.193	0.046	<0.001
Duration of marriage	0.073	0.004	<0.001
Region (ref = Sumatra)			
Java	-0.275	0.044	<0.001
Bali & Nusa Tenggara	-0.074	0.073	0.312
Kalimantan	-0.301	0.090	0.001
Sulawesi	-0.249	0.080	0.002
Religion (ref = Muslim)			
Protestant	0.158	0.078	0.042
Catholic	0.183	0.132	0.166
Hindu	-0.099	0.101	0.325
Buddhist	0.164	0.164	0.318
Other	-0.203	1.002	0.839
Urban / Rural (ref = Urban)			
Rural	-0.066	0.039	0.093
Age	0.166	0.015	<0.001
Age squared	-0.003	0.000	<0.001
Education (ref = none)			
Primary	0.312	0.075	<0.001
Jr. Secondary	0.351	0.085	<0.001
Sr. Secondary	0.406	0.088	<0.001
Tertiary	0.304	0.107	0.005
Wealth indicator	-0.024	0.022	0.270
constant	-3.057	0.258	<0.001
n	2717		

Since individuals are not independent, we only include women once by analyzing women from wave 3. We also excluded women who were married multiple times as post-marital residence is not straightforward with multiple marriages.

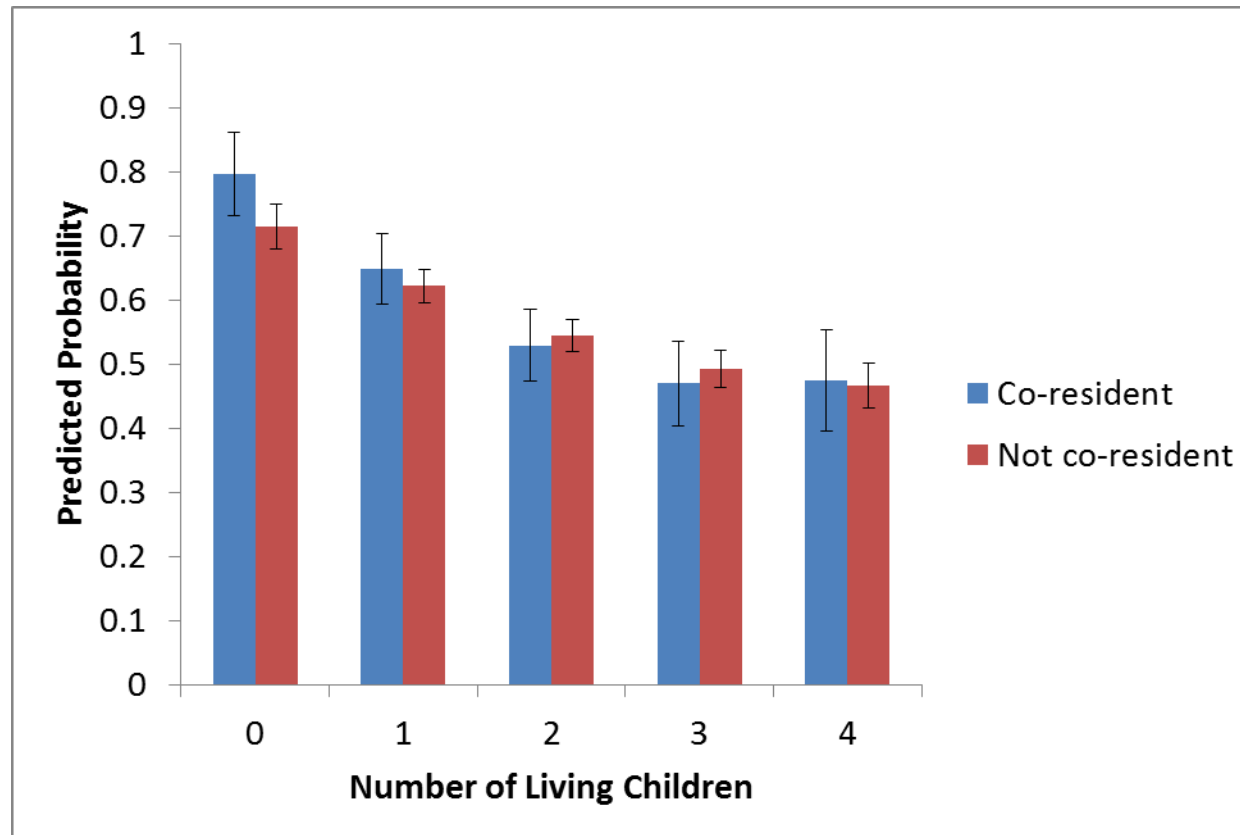
Supplementary Material Table 7: Direction of effects on causal pathway by region.

		Region				
		Sumatra	Java	Bali / Nusa Tenggara	Kalimantan	Sulawesi
Mother	Geographic -> Contact	***	***	***	***	***
	Contact -> Help	***	+	^	+	+
	Help -> Birth	-	^	^	^	-
	Geographic -> Help	+	**	+	+	+
	Geographic -> Birth	+	+	+	-	+
	Contact -> Birth	-	-	-	+	-
Father	Geographic -> Contact	***	***	***	***	***
	Contact -> Help	***	***	^	+	+
	Help -> Birth	+	+	+	+	-*
	Geographic -> Help	-	+	+	^	+
	Geographic -> Birth	-	+	+	-	-
	Contact -> Birth	+	+	+	+	+
Mother-in-law	Geographic -> Contact	***	***	***	***	***
	Contact -> Help	+	+	^	+	+
	Help -> Birth	+	**	+	+	-
	Geographic -> Help	+	**	-	+	-
	Geographic -> Birth	-	-**	-	+	-
	Contact -> Birth	-	+	^	+	-
Father-in-law	Geographic -> Contact	***	***	***	***	***
	Contact -> Help	***	**	**	+	+
	Help -> Birth	^	+	+	+	-
	Geographic -> Help	-	**	^	-	-
	Geographic -> Birth	-	^	-	+	+
	Contact -> Birth	+	-	+	-	-
max possible sample size		1138	3064	702	252	221

^ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$; + refers to a positive effect; - refers to a negative effect. Max possible sample size is the sample size for mothers, given that there are deaths among other kin members, the sample size is smaller for the other kin categories. First three lines (Geographic -> Contact, Contact -> Help, Help -> Birth), refers to the direct path of the hypothesized causal model. The next three lines refer to direct effects after controlling for a mediating pathway.

Geographic -> Help is the effect of geographic proximity on receiving help after controlling for kin contact; Geographic -> Birth is the effect of geographic proximity on having a birth after controlling for kin contact and receiving help; Contact -> Birth is the effect of contact frequency on having a birth after controlling for receiving help.

Supplementary Material Figure 1: Predicted probability of progression to a birth from random effects logistic regression analysis for co-resident vs. not co-resident mothers-in-law (see Table 2).



Note: Error bars represent 95% confidence intervals. Model controls for: mother's, father's and father-in-law's co-residence status, region, religion, urban/rural residence, education, age (categorized in 5-year age groups), age at first marriage, whether respondent has been married more than once, a wealth indicator, wave, and interactions between wealth, number of living children and number of living children squared.

Supplementary Material Figure 2: Predicted probability from random effects logistic regression analyses predicting progression to a birth by the next wave; models ran separately by region

