SUPPLEMENT Table 4

Model 7 - Negative binomial regression models based on full sample – 3-way interaction (social integration index)

Variable	irr	std.error	conf.low	conf.high	p.value
Gender: female (male = Ref.)	1.033	0.029	0.9759	1.0935	0.263
Age	1.0061	0.0029	1.0003	1.0119	0.0377
Education (ISCED-1997 Coding: 0=low – 6=high)	0.9441	0.0127	0.9209	0.9678	0.000
Income: make ends meet: fairly easy or easy (with great or some difficulty = Ref.)	0.851	0.0293	0.8035	0.9014	0.000
Employment status (employed = Ref.)					
retired	0.7027	0.0285	0.6645	0.7432	0.000
unemployed	1.0258	0.0564	0.9185	1.1456	0.6519
permanently sick or disabled	1.0986	0.1099	0.8857	1.3625	0.3923
homemaker	1.0305	0.1441	0.7769	1.3668	0.8349
Self-perceived health (0=poor – 4=excellent)	1.2763	0.1287	0.9917	1.6426	0.058
Social integration index (0=low – 6=high)	1.4546	0.1577	1.068	1.9813	0.0175
Self-perceived health * Social integration index	1.0028	0.0229	0.9587	1.0489	0.9033
Self-perceived health * employment status					
*Self-perceived health * retired*	1.0807	0.0447	0.9901	1.1797	0.0823
*Self-perceived health * unemployed*	1.0201	0.0683	0.8922	1.1663	0.7708
*Self-perceived health * permanently sick or disabled*	1.1167	0.0874	0.9408	1.3254	0.207
*Self-perceived health * homemaker*	0.9394	0.0692	0.8202	1.0758	0.366
Social integration index * employment status					
*Social integration index * retired*	0.9694	0.061	0.8602	1.0925	0.6107
*Social integration index * unemployed*	1.1323	0.0829	0.9626	1.3321	0.1337
*Social integration index * permanently sick or disabled*	0.908	0.1141	0.7261	1.1355	0.3977

	IRR	SE	Lower	Upper	p
*Social integration index * homemaker*	0.8828	0.1035	0.7206	1.0814	0.2284
Self-perceived health * social integration index * employment status					
*Self-perceived health * social integration index * retired*	0.9805	0.0251	0.9334	1.0299	0.4327
*Self-perceived health * social integration index * unemployed*	0.9504	0.041	0.877	1.0299	0.2147
*Self-perceived health * social integration index * permanently sick or disabled*	1.0483	0.0796	0.8969	1.2253	0.5532
*Self-perceived health * social integration index * homemaker*	1.0033	0.0466	0.9157	1.0993	0.9438
Intercept	9.8174	0.0854	8.3046	11.6058	0.000
alpha	0.6045	0.0240	0.5596	0.6539	
n – unweighted			47,066		
N – weighted			119,390,189		
Number of strata (countries)			16		
Number of primary sampling units (households)			34,623		

IRR = incidence rate ratio
95%-confidence interval
alpha = estimate of dispersion parameters
Age, social integration, contact frequency and closeness are centered at the mean
n = number of observations; N = population size based on survey design
Observations with missing values were dropped (listwise deletion).

Model 8 - Negative binomial regression models based on full sample – 3-way interaction (social contact frequency)

Variable	irr	std.error	conf.low	conf.high	p.value
Gender: female (male = Ref.)	1.0574	0.0326	0.992	1.1271	0.0867
Age	1.0066	0.0028	1.0011	1.0121	0.018
Education (ISCED-1997 Coding: 0=low – 6=high)	0.9464	0.0117	0.9249	0.9684	0.000
Income: make ends meet: fairly easy or easy (with great or some difficulty = Ref.)	0.8477	0.0317	0.7966	0.9021	0.000
Employment status (employed = Ref.)					
retired	0.7102	0.0284	0.6718	0.7509	0.000
unemployed	1.0848	0.0757	0.9352	1.2584	0.2823
permanently sick or disabled	1.1295	0.1135	0.9042	1.4108	0.2834
homemaker	1.0391	0.1435	0.7845	1.3765	0.7889
Self-perceived health (0=poor – 4=excellent)	1.3951	0.1594	1.0207	1.9067	0.0367
Average of contact frequency in social network (0=less than once per month or never – 5=daily)	1.4007	0.191	0.9633	2.0367	0.0777
Self-perceived health * Contact frequency	0.9626	0.0284	0.9104	1.0177	0.1796
Self-perceived health * employment status					
*Self-perceived health * retired*	1.0681	0.0455	0.977	1.1676	0.1475
*Self-perceived health * unemployed*	0.9969	0.0685	0.8716	1.1402	0.9635
*Self-perceived health * permanently sick or disabled*	1.0637	0.1135	0.8516	1.3287	0.586
*Self-perceived health * homemaker*	0.9208	0.0822	0.7838	1.0817	0.3153
Contact frequency * employment status					
*Contact frequency * retired*	0.8891	0.0948	0.7384	1.0706	0.2149
*Contact frequency * unemployed*	0.7879	0.1516	0.5853	1.0605	0.1158
*Contact frequency * permanently sick or disabled*	0.9316	0.1271	0.7262	1.1952	0.5774
*Contact frequency * homemaker*	1.0568	0.1504	0.787	1.419	0.7134

Self-perceived health * Contact frequency * employment status

*Self-perceived health * Contact frequency * retired*	1.0949	0.0464	0.9998	1.1992	0.0506
*Self-perceived health * Contact frequency * unemployed*	1.1731	0.0742	1.0144	1.3567	0.0314
*Self-perceived health * Contact frequency * permanently sick or disabled*	1.0632	0.0622	0.9412	1.2011	0.3242
*Self-perceived health * Contact frequency * homemaker*	1.0475	0.0663	0.9199	1.1928	0.4838
Intercept	9.4885	0.0848	8.0361	11.2034	0.000
Alpha	0.6009	0.0245	0.5547	0.6509	
n – unweighted			43,962		
N – weighted			110,219,002		
Number of strata (countries)			16		
Number of primary sampling units (households)			32,616		

IRR = incidence rate ratio
95%-confidence interval
alpha = estimate of dispersion parameters
Age, social integration, contact frequency and closeness are centered at the mean
n = number of observations; N = population size based on survey design
Observations with missing values were dropped (listwise deletion).

Model 9 - Negative binomial regression models based on full sample – 3-way interaction (emotional closeness)

Variable	irr	std.error	conf.low	conf.high	p.value
Gender: female (male = Ref.)	1.0428	0.0338	0.9759	1.1143	0.2152
Age	1.0066	0.0029	1.0008	1.0124	0.0258
Education (ISCED-1997 Coding: 0=low – 6=high)	0.9437	0.0126	0.9206	0.9673	0.000
Income: make ends meet: fairly easy or easy (with great or some difficulty = Ref.)	0.834	0.032	0.7833	0.888	0.000
Employment status (employed = Ref.)					
retired	0.7057	0.0287	0.6671	0.7465	0.000
unemployed	0.997	0.0447	0.9133	1.0884	0.9462
permanently sick or disabled	1.1027	0.1153	0.8797	1.3823	0.3964
homemaker	0.9959	0.1493	0.7433	1.3345	0.9781
Self-perceived health (0=poor – 4=excellent)	1.3689	0.1537	1.0128	1.8503	0.0411
Number of very to extremely close people in social network (0-7)	1.4595	0.1588	1.0691	1.9926	0.0173
Self-perceived health * Contact frequency	1.0089	0.016	0.9778	1.041	0.5778
Self-perceived health * employment status					
*Self-perceived health * retired*	1.0726	0.0458	0.9804	1.1734	0.1264
*Self-perceived health * unemployed*	1.0202	0.0701	0.8891	1.1705	0.7758
*Self-perceived health * permanently sick or disabled*	1.0548	0.1132	0.845	1.3167	0.6374
*Self-perceived health * homemaker*	0.9282	0.0666	0.8145	1.0576	0.2632
Emotional closeness * employment status					
*Emotional closeness * retired*	1.0632	0.0543	0.9558	1.1827	0.2594
*Emotional closeness * unemployed*	1.0921	0.1072	0.8851	1.3476	0.4111
*Emotional closeness * permanently sick or disabled*	1.1124	0.1122	0.8927	1.3861	0.3427
*Emotional closeness * homemaker*	0.931	0.0929	0.776	1.1168	0.4412
Self-perceived health * Emotional closeness *					

employment status

	IRR	SE	CI low	CI high	p
*Self-perceived health * Emotional closeness * retired*	0.963	0.0261	0.9151	1.0135	0.1483
*Self-perceived health * Emotional closeness * unemployed*	0.9513	0.05	0.8625	1.0493	0.3181
*Self-perceived health * Emotional closeness * permanently sick or disabled*	0.9751	0.0761	0.84	1.1318	0.7401
*Self-perceived health * Emotional closeness * homemaker*	1.0038	0.0401	0.9279	1.086	0.9247
Intercept	9.9586	0.0854	8.4236	11.7733	0.000
alpha	0.6074	0.0255	0.5594	0.6595	
n – unweighted	44,840				
N – weighted	112,626,161				
Number of strata (countries)	16				
Number of primary sampling units (households)	33,160				

IRR = incidence rate ratio
95%-confidence interval
alpha = estimate of dispersion parameters
Age, social integration, contact frequency and closeness are centered at the mean
n = number of observations; N = population size based on survey design
Observations with missing values were dropped (listwise deletion).