Supplementary Information

The Impact of the Syrian Conflict on Population Well-being

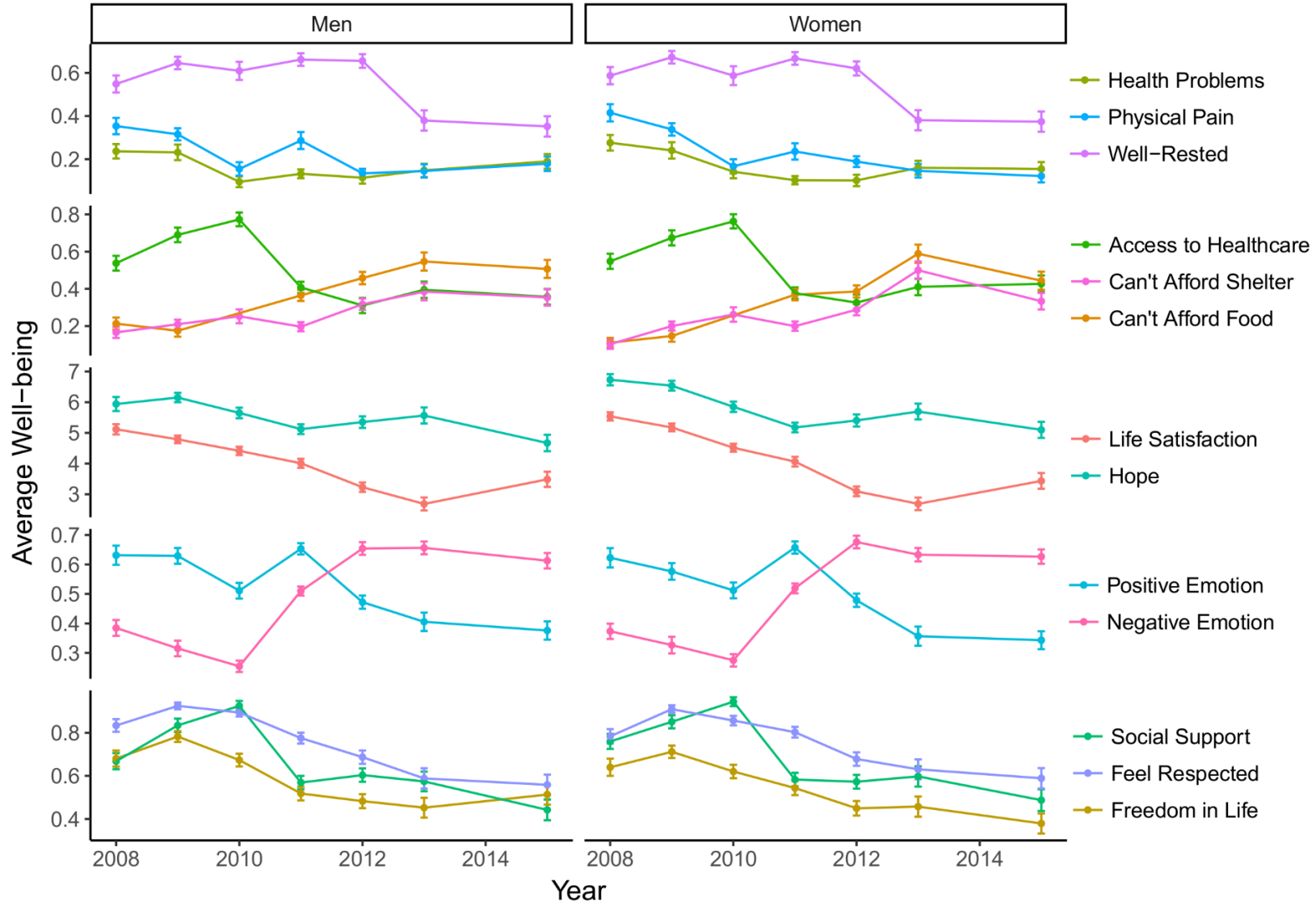Cheung et al.

Corresponding author: Dr. Felix Cheung
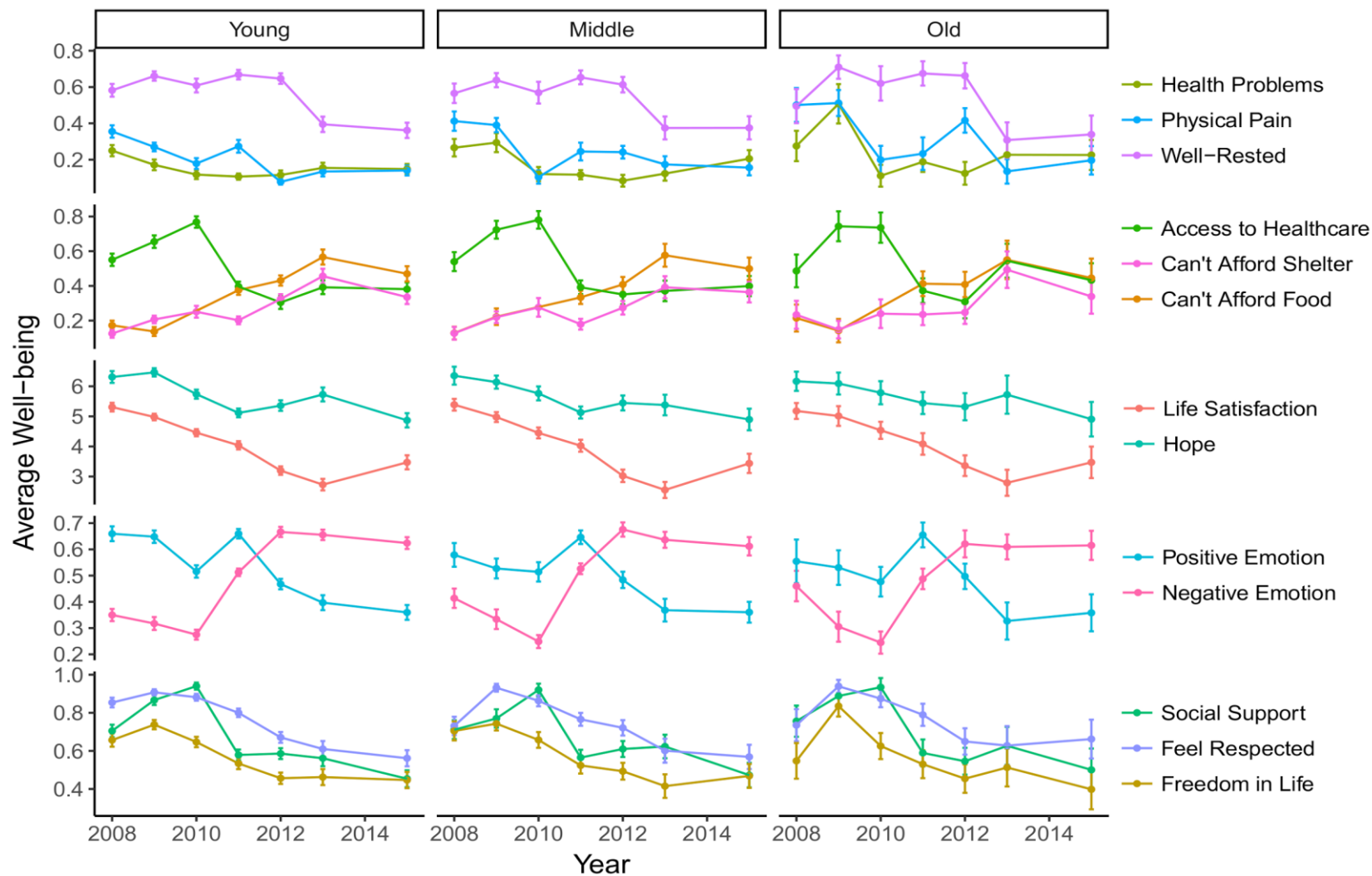Email: felixckc@hku.hk

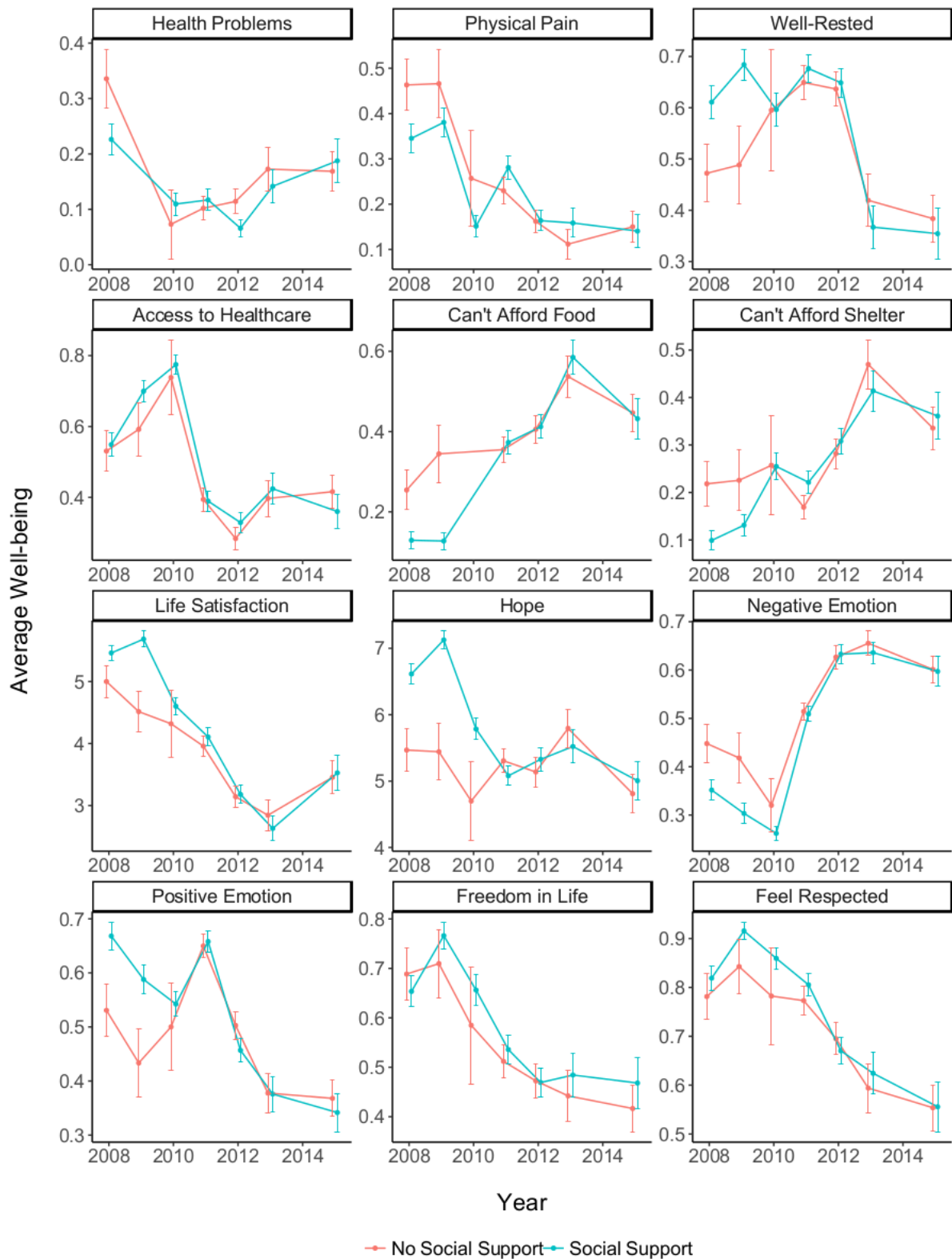**The supplementary file includes:**

Supplementary Figure 1. **Sex-specific trends in well-being in Syria from 2008 to 2015.** Error bars indicate 95% CI (±1.96 * standard error). Source data are provided as a Source Data file.

Supplementary Figure 2. Age-specific trends in well-being in Syria from 2008 to 2015. Younger adults, mid-life adults, and older adults refer to participants aged 35 or younger, participants aged 36-55, and participants 56 or older, respectively. Error bars indicate 95% CI (±1.96 * standard error). Source data are provided as a Source Data file.

Supplementary Figure 3. Temporal changes in well-being from 2008 to 2015 by availability of social support. Error bars indicate 95% CI (±1.96 * standard error). Source data are provided as a Source Data file.
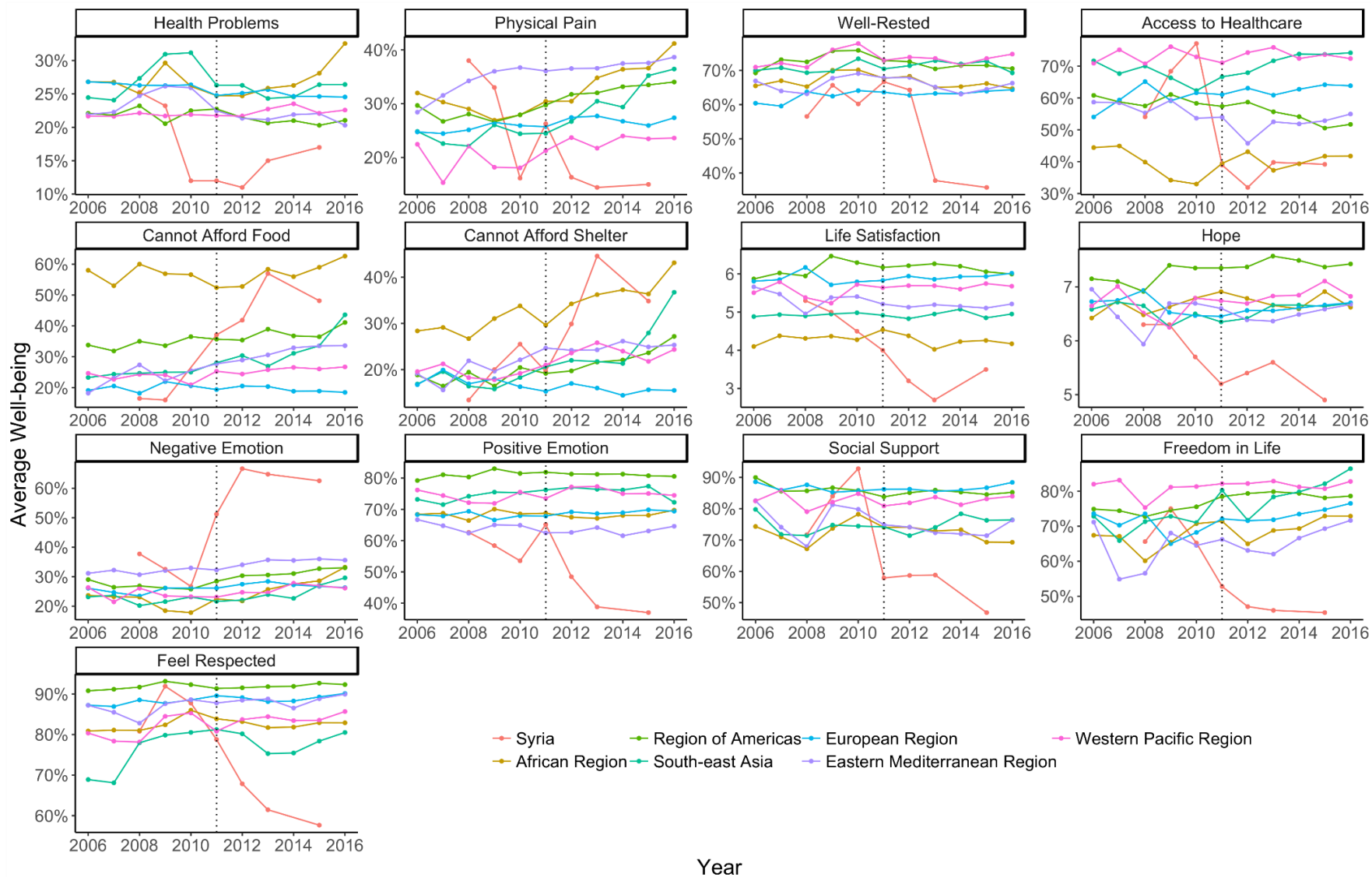
Supplementary Figure 4. The longitudinal trends in physical, mental, and social well-being for Syria and 6 WHO regions from 2006 to 2016. Source data are provided as a Source Data file.
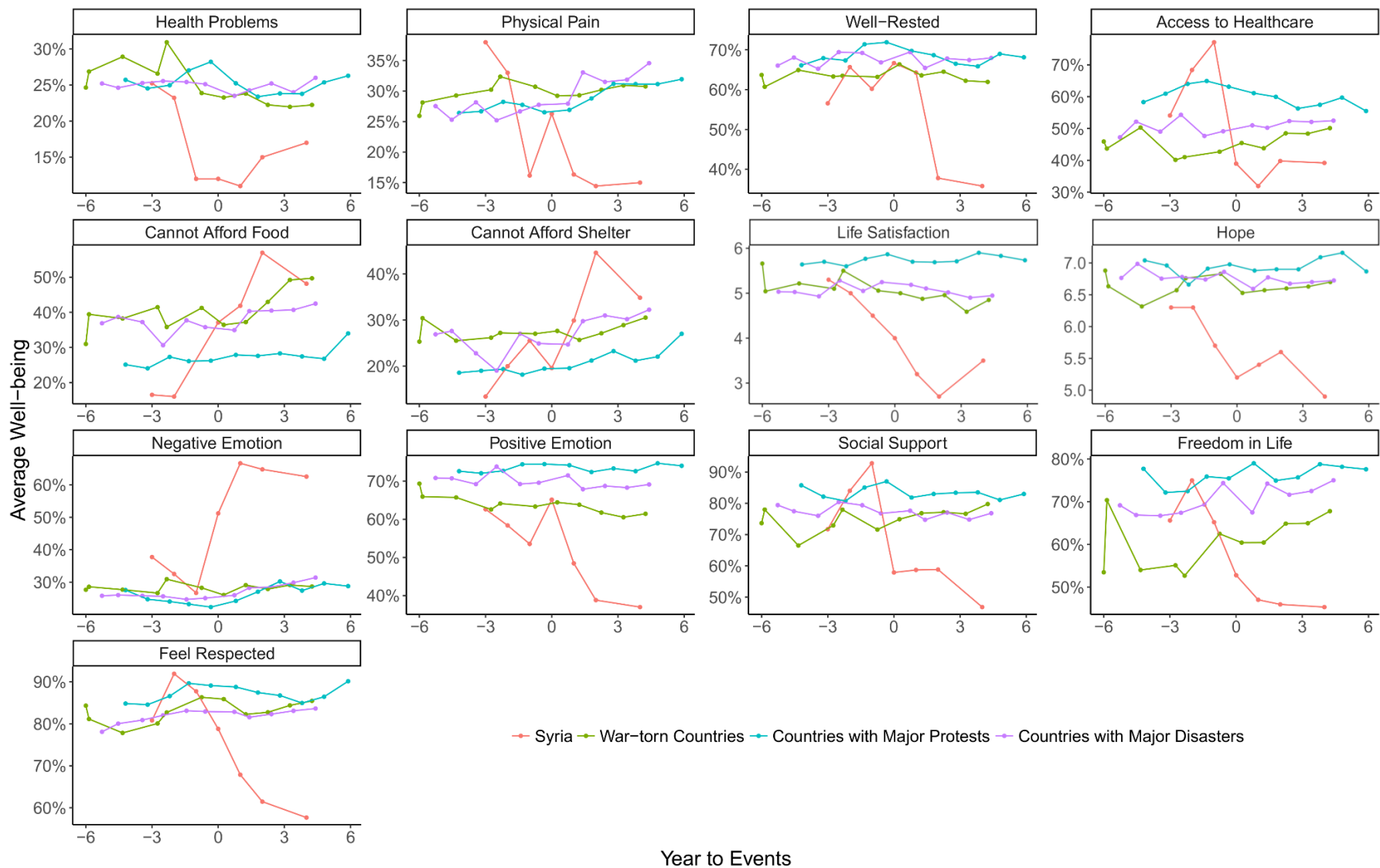
Supplementary Figure 5. The longitudinal trends in well-being for Syria and countries that experienced war, protests, and disasters. Source data are provided as a Source Data file.

Supplementary Table 1. Estimates and 95% confidence intervals from multilevel modeling of temporal changes in well-being in Syria.

	Problems	Pain	Rested	Health Care	Cannot Afford Food	Cannot Afford Shelter	Life Sat.	Hope	Pos. Emot.	Neg. Emot.	Support	Respect	Freedom
Overall Trends in Well-being													
N	8330	9319	9684	8039	7650	9783	11300	10263	8991	11393	8751	10726	10368
Intercept	-1.354	-0.615	0.773	0.520	-1.527	-1.670	5.152	6.222	0.648	0.299	1.380	0.914	2.186
	[-1.508; -1.200]	[-0.734; -0.495]	[0.669; 0.877]	[0.381; 0.659]	[-1.658; -1.396]	[-1.807; -1.533]	[5.055; 5.248]	[6.111; 6.333]	[0.632; 0.664]	[0.281; 0.318]	[1.278; 1.483]	[0.824; 1.003]	[2.044; 2.327]
Year	-0.658	-1.475	-0.978	-1.283	1.908	1.238	-2.631	-1.456	-0.277	0.414	-1.625	-1.460	-2.098
	[-0.859; -0.456]	[-1.651; -1.300]	[-1.124; -0.831]	[-1.436; -1.131]	[1.735; 2.081]	[1.077; 1.398]	[-2.789; -2.473]	[-1.646; -1.267]	[-0.304; -0.251]	[0.393; 0.435]	[-1.790; -1.461]	[-1.607; -1.313]	[-2.269; -1.928]
Estimates of Well-being based on the results from multilevel models													
2008	20.5%	35.1%	68.4%	62.7%	17.8%	15.8%	5.15	6.22	64.8%	29.9%	79.9%	71.4%	89.9%
95% CI lower bound	18.1%	32.4%	66.1%	59.4%	16.0%	14.1%	5.06	6.11	63.2%	28.1%	78.2%	69.5%	88.5%
95% CI upper bound	23.1%	37.9%	70.6%	65.9%	19.8%	17.8%	5.25	6.33	66.4%	31.8%	81.5%	73.2%	91.1%
2015	11.8%	11.0%	44.9%	31.8%	59.4%	39.4%	2.52	4.77	37.1%	71.3%	43.9%	36.7%	52.2%
95% CI lower bound	9.9%	9.4%	41.3%	28.6%	55.2%	35.6%	2.36	4.58	34.4%	69.2%	39.9%	33.3%	47.9%
95% CI upper bound	14.1%	12.8%	48.6%	35.2%	63.5%	43.2%	2.68	4.96	39.7%	73.4%	48.0%	40.2%	56.4%

Supplementary Table 2. Estimates and 95% confidence intervals from multilevel modeling of the demographic differences in temporal changes in well-being in Syria.

	Problems	Pain	Rested	Health Care	Cannot Afford Food	Cannot Afford Shelter	Life Sat.	Hope	Pos. Emot.	Neg. Emot.	Support	Respect	Freedom
Demographic Differences in Trends in Well-being													
N	8326	9314	9679	8036	7648	9778	11295	10258	8988	11388	8748	10721	10363
Intercept	-1.434	-0.707	0.742	0.566	-1.362	-1.590	4.983	6.033	0.654	0.295	1.273	0.989	2.324
	[-1.618; -1.250]	[-0.855; -0.558]	[0.615; 0.868]	[0.405; 0.726]	[-1.522; -1.202]	[-1.749; -1.431]	[4.860; 5.105]	[5.890; 6.176]	[0.633; 0.674]	[0.273; 0.316]	[1.138; 1.408]	[0.875; 1.103]	[2.153; 2.495]
Year	-0.450	-1.335	-0.913	-1.424	1.756	1.093	-2.362	-1.292	-0.275	0.415	-1.481	-1.440	-2.351
	[-0.730; -0.171]	[-1.582; -1.089]	[-1.119; -0.706]	[-1.639; -1.209]	[1.518; 1.994]	[0.870; 1.316]	[-2.583; -2.141]	[-1.555; -1.029]	[-0.312; -0.238]	[0.385; 0.445]	[-1.708; -1.254]	[-1.645; -1.234]	[-2.594; -2.107]
Sex	0.175	0.216	0.073	-0.098	-0.345	-0.158	0.343	0.384	-0.017	0.010	0.236	-0.146	-0.286
	[-0.023; 0.374]	[0.060; 0.373]	[-0.073; 0.218]	[-0.256; 0.059]	[-0.543; -0.146]	[-0.331; 0.015]	[0.189; 0.498]	[0.195; 0.573]	[-0.043; 0.009]	[-0.011; 0.032]	[0.056; 0.417]	[-0.291; -0.001]	[-0.472; -0.100]
Age	0.115	0.146	0.043	-0.033	0.096	0.036	0.014	-0.004	-0.023	0.011	0.072	0.016	-0.054
	[0.022; 0.208]	[0.072; 0.220]	[-0.027; 0.113]	[-0.110; 0.043]	[0.003; 0.189]	[-0.044; 0.117]	[-0.060; 0.089]	[-0.094; 0.086]	[-0.036; -0.011]	[0.001; 0.022]	[-0.014; 0.157]	[-0.053; 0.086]	[-0.144; 0.036]
Year X Sex	-0.460	-0.399	-0.144	0.297	0.327	0.282	-0.554	-0.328	0.003	-0.006	-0.320	-0.054	0.532
	[-0.865; -0.055]	[-0.753; -0.044]	[-0.437; 0.149]	[-0.008; 0.601]	[-0.022; 0.676]	[-0.040; 0.604]	[-0.869; -0.239]	[-0.706; 0.049]	[-0.049; 0.056]	[-0.048; 0.037]	[-0.651; 0.012]	[-0.349; 0.241]	[0.190; 0.873]
Year X Age	-0.039	0.113	-0.143	0.085	-0.188	-0.010	-0.048	-0.036	0.035	-0.019	-0.024	-0.028	0.131
	[-0.219; 0.141]	[-0.040; 0.265]	[-0.282; -0.005]	[-0.058; 0.228]	[-0.350; -0.026]	[-0.157; 0.138]	[-0.196; 0.100]	[-0.212; 0.140]	[0.010; 0.059]	[-0.039; 0.001]	[-0.177; 0.129]	[-0.165; 0.109]	[-0.032; 0.293]
Sex X Age	-0.031	0.013	-0.080	0.083	-0.149	-0.024	-0.031	-0.108	-0.004	-0.000	-0.075	0.035	-0.051
	[-0.164; 0.103]	[-0.093; 0.119]	[-0.181; 0.020]	[-0.025; 0.192]	[-0.287; -0.010]	[-0.142; 0.095]	[-0.137; 0.076]	[-0.237; 0.022]	[-0.022; 0.014]	[-0.015; 0.015]	[-0.199; 0.049]	[-0.066; 0.135]	[-0.176; 0.074]
Year X Sex X Age	0.100	-0.104	0.228	-0.103	0.274	-0.092	0.011	0.259	0.006	-0.005	-0.013	-0.039	0.072
	[-0.162; 0.361]	[-0.327; 0.119]	[0.031; 0.425]	[-0.307; 0.101]	[0.034; 0.513]	[-0.309; 0.124]	[-0.201; 0.223]	[0.006; 0.512]	[-0.029; 0.041]	[-0.034; 0.024]	[-0.236; 0.210]	[-0.237; 0.159]	[-0.155; 0.300]

Supplementary Table 3. Estimated changes in physical well-being in 13 Syrian governorates based on the random effects from multilevel models.

	Health Problems		Pain		Rested		Health Care		Cannot Afford Food		Cannot Afford Shelter	
Likelihood Ratio Test (χ2, df = 2)	32.1		24.5		33.7		74.1		10.9		35.6	
p-value	<0.0001		<0.0001		<0.0001		<0.0001		0.0043		<0.0001	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Damascus	0.379	[0.339,0.423]	0.218	[0.192,0.246]	0.197	[0.178,0.219]	0.666	[0.593,0.748]	4.188	[4.0,4.39]	1.778	[1.63,1.94]
Rural Damascus	0.508	[0.453,0.570]	0.265	[0.241,0.291]	0.204	[0.188,0.221]	0.064	[0.057,0.072]	7.595	[7.35,7.85]	3.662	[3.39,3.96]
Sweida	0.053	[0.038,0.073]	0.029	[0.020,0.043]	0.420	[0.317,0.556]	0.491	[0.329,0.735]	7.711	[6.77,8.78]	10.269	[7.01,15.1]
Daraa	0.324	[0.251,0.418]	0.400	[0.318,0.503]	0.316	[0.266,0.375]	0.120	[0.093,0.154]	6.886	[6.30,7.52]	2.374	[2.04,2.76]
Homs	0.310	[0.283,0.338]	0.243	[0.218,0.271]	0.530	[0.484,0.580]	0.204	[0.178,0.234]	7.439	[7.11,7.78]	5.382	[4.86,5.96]
Hama	1.125	[0.934,1.36]	0.113	[0.099,0.129]	0.718	[0.645,0.799]	0.152	[0.131,0.177]	14.905	[14.,15.9]	9.045	[7.87,10.4]
Tartus	0.453	[0.376,0.545]	0.119	[0.100,0.140]	0.975	[0.847,1.12]	1.327	[1.08,1.64]	10.338	[9.48,11.3]	6.924	[5.67,8.46]
Latakia	0.295	[0.251,0.348]	0.353	[0.296,0.421]	0.311	[0.269,0.359]	0.758	[0.630,0.910]	5.839	[5.46,6.25]	8.536	[7.11,10.3]
Aleppo	0.464	[0.445,0.483]	0.220	[0.210,0.231]	0.531	[0.512,0.552]	0.317	[0.303,0.331]	5.824	[5.73,5.92]	3.611	[3.47,3.76]
Idlib	1.439	[1.18,1.76]	0.246	[0.214,0.284]	0.286	[0.256,0.321]	0.209	[0.177,0.247]	4.995	[4.75,5.25]	2.566	[2.30,2.86]
Deir ez-zor	0.732	[0.608,0.880]	0.190	[0.163,0.222]	0.413	[0.364,0.469]	0.319	[0.267,0.380]	6.979	[6.56,7.42]	2.078	[1.86,2.33]
Al- Hasakah	0.978	[0.764,1.25]	0.490	[0.403,0.595]	0.270	[0.234,0.312]	0.202	[0.165,0.246]	4.755	[4.48,5.05]	1.335	[1.19,1.50]
Ar-Raqqah	1.768	[1.22,2.56]	0.541	[0.414,0.706]	0.128	[0.105,0.157]	0.693	[0.548,0.876]	7.855	[7.16,8.61]	4.120	[3.40,4.99]

Supplementary Table 4. Estimated changes in mental and social well-being in 13 Syrian governorates based on the random effects from multilevel models.

	Life Satisfaction		Hope		Pos. Emot.		Neg. Emot.		Support		Respect		Freedom	
Likelihood Ratio Test (χ2, df = 2)	9.2		38.1		8.6		36.2		14.6		42.1		12.7	
p-value	0.0102		<0.0001		0.0135		<0.0001		0.0007		<0.0001		0.002	
	b	95% CI	b	95% CI	b	95% CI	b	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Damascus	-2.442	[-2.75,-2.69]	-1.497	[-1.66,-1.34]	-0.257	[-0.258,-0.255]	0.446	[0.445,0.448]	0.125	[0.110,0.142]	0.129	[0.114,0.146]	0.334	[0.317,0.351]
Rural Damascus	-2.085	[-2.40,-2.35]	-1.317	[-1.45,-1.18]	-0.307	[-0.308,-0.306]	0.458	[0.456,0.459]	0.110	[0.100,0.122]	0.056	[0.050,0.062]	0.295	[0.284,0.308]
Sweida	-2.372	[-2.77,-2.59]	-1.388	[-1.97,-0.809]	-0.281	[-0.285,-0.277]	0.346	[0.342,0.351]	0.381	[0.286,0.507]	0.083	[0.055,0.125]	0.206	[0.180,0.235]
Daraa	-2.479	[-2.89,-2.78]	-0.550	[-0.841,-0.259]	-0.275	[-0.278,-0.272]	0.472	[0.469,0.475]	0.190	[0.155,0.233]	0.126	[0.102,0.156]	0.222	[0.204,0.243]
Homs	-1.904	[-2.21,-2.10]	-1.572	[-1.76,-1.38]	-0.293	[-0.295,-0.292]	0.347	[0.345,0.348]	0.261	[0.233,0.292]	0.090	[0.079,0.102]	0.300	[0.286,0.314]
Hama	-2.127	[-2.48,-2.41]	0.042	[-0.149,0.234]	-0.216	[-0.218,-0.214]	0.408	[0.406,0.410]	0.162	[0.141,0.186]	0.077	[0.066,0.091]	0.148	[0.139,0.158]
Tartus	-2.075	[-2.47,-2.34]	-1.314	[-1.60,-1.03]	-0.178	[-0.180,-0.175]	0.363	[0.361,0.366]	0.238	[0.200,0.283]	0.791	[0.692,0.904]	0.315	[0.291,0.340]
Latakia	-2.324	[-2.66,-2.56]	-1.084	[-1.34,-0.829]	-0.356	[-0.359,-0.354]	0.418	[0.415,0.420]	0.324	[0.274,0.382]	0.215	[0.182,0.254]	0.146	[0.134,0.158]
Aleppo	-2.614	[-2.79,-2.76]	-2.222	[-2.29,-2.16]	-0.259	[-0.260,-0.258]	0.333	[0.332,0.334]	0.166	[0.158,0.175]	0.163	[0.156,0.171]	0.177	[0.173,0.181]
Idlib	-2.438	[-2.72,-2.63]	-1.775	[-1.99,-1.56]	-0.298	[-0.299,-0.296]	0.489	[0.487,0.491]	0.259	[0.225,0.298]	0.148	[0.130,0.170]	0.166	[0.156,0.178]
Deir ez-zor	-2.650	[-3.06,-2.96]	-2.075	[-2.35,-1.80]	-0.281	[-0.283,-0.279]	0.448	[0.446,0.451]	0.600	[0.517,0.697]	0.056	[0.046,0.067]	0.258	[0.241,0.276]
Al- Hasakah	-2.284	[-2.64,-2.56]	-1.192	[-1.46,-0.923]	-0.367	[-0.369,-0.364]	0.521	[0.519,0.523]	0.261	[0.221,0.307]	0.069	[0.057,0.082]	0.299	[0.279,0.321]
Ar-Raqqah	-2.505	[-2.94,-2.83]	-0.195	[-0.552,0.163]	-0.297	[-0.300,-0.294]	0.568	[0.564,0.571]	0.128	[0.102,0.162]	0.139	[0.111,0.175]	0.307	[0.279,0.337]

Supplementary Table 5. Odd ratios and 95% confidence intervals comparing the levels of well-being of participants who were exposed and not exposed to the Syria conflict.

	Problems	Pain	Rested	Health Care	Cannot Afford Food	Cannot Afford Shelter	Life Sat.	Hope	Pos. Emot.	Neg. Emot.	Support	Respect	Freedom
Exposed vs Not Exposed (Reference Group) to the Syria Conflict													
OR/b	1.038	0.986	1.030	1.074	1.362	1.235	-0.170	-0.327	0.002	0.013	0.999	0.820	1.078
95% CI	[0.817, 1.319]	[0.766, 1.271]	[0.835, 1.270]	[0.885, 1.303]	[1.108, 1.674]	[1.012, 1.508]	[-0.404, 0.064]	[-0.597, -0.057]	[-0.029, 0.034]	[-0.011, 0.037]	[0.815, 1.225]	[0.672, 1.002]	[0.889, 1.307]

Supplementary Table 6. Estimates and 95% confidence intervals from multiple imputations of multilevel modeling testing the differences in well-being by exposure to the Syria conflict.

	Problems	Pain	Rested	Health Care	Cannot Afford Food	Cannot Afford Shelter	Life Sat.	Hope	Pos. Emot.	Neg. Emot.	Support	Respect	Freedom
Intercept	-1.775 [-2.038, -1.511]	-1.777 [-2.101, -1.453]	-0.501 [-0.742, -0.260]	-0.475 [-0.819, -0.132]	0.050 [-0.170, 0.270]	-0.518 [-0.749, -0.288]	2.751 [2.497, 3.005]	5.709 [5.365, 6.053]	0.404 [0.371, 0.438]	0.653 [0.627, 0.678]	0.292 [0.053, 0.532]	0.459 [0.241, 0.677]	-0.211 [-0.427, 0.006]
Year	0.245 [-0.092, 0.583]	0.173 [-0.177, 0.524]	-0.088 [-0.386, 0.210]	-0.174 [-0.449, 0.100]	-0.199 [-0.475, 0.076]	-0.248 [-0.529, 0.034]	0.837 [0.510, 1.165]	-0.818 [-1.201, -0.436]	-0.030 [-0.074, 0.015]	-0.056 [-0.089, -0.023]	-0.569 [-0.843, -0.294]	-0.105 [-0.384, 0.173]	0.193 [-0.073, 0.459]
Sex	0.057 [-0.289, 0.404]	-0.016 [-0.374, 0.342]	0.014 [-0.270, 0.297]	0.086 [-0.184, 0.357]	0.114 [-0.166, 0.394]	0.418 [0.140, 0.695]	0.023 [-0.302, 0.347]	0.164 [-0.214, 0.542]	-0.047 [-0.091, -0.003]	-0.025 [-0.058, 0.008]	0.075 [-0.199, 0.350]	0.163 [-0.113, 0.440]	-0.026 [-0.298, 0.246]
Age	-0.083 [-0.242, 0.077]	0.058 [-0.089, 0.206]	-0.055 [-0.182, 0.073]	0.010 [-0.103, 0.123]	-0.041 [-0.159, 0.077]	0.055 [-0.062, 0.173]	-0.072 [-0.210, 0.067]	0.010 [-0.157, 0.177]	-0.010 [-0.030, 0.009]	0.000 [-0.014, 0.015]	0.060 [-0.058, 0.177]	0.017 [-0.102, 0.135]	-0.003 [-0.116, 0.110]
Exposure	0.037 [-0.203, 0.277]	-0.014 [-0.267, 0.240]	0.029 [-0.180, 0.239]	0.071 [-0.122, 0.264]	0.309 [0.103, 0.515]	0.211 [0.012, 0.411]	-0.170 [-0.404, 0.064]	-0.327 [-0.597, -0.057]	0.002 [-0.029, 0.034]	0.013 [-0.011, 0.037]	-0.001 [-0.205, 0.203]	-0.198 [-0.398, 0.002]	0.075 [-0.118, 0.268]
Year X Sex	-0.243 [-0.727, 0.240]	-0.410 [-0.920, 0.100]	0.061 [-0.343, 0.466]	0.284 [-0.099, 0.666]	-0.317 [-0.704, 0.070]	-0.504 [-0.896, -0.111]	-0.092 [-0.555, 0.371]	0.242 [-0.294, 0.779]	0.015 [-0.047, 0.078]	0.037 [-0.010, 0.085]	0.086 [-0.300, 0.473]	-0.040 [-0.429, 0.349]	-0.489 [-0.872, -0.106]
Year X Age	0.303 [0.093, 0.513]	0.121 [-0.084, 0.325]	0.030 [-0.155, 0.216]	0.030 [-0.137, 0.196]	-0.035 [-0.214, 0.145]	0.001 [-0.168, 0.170]	0.071 [-0.135, 0.277]	-0.125 [-0.361, 0.110]	0.011 [-0.017, 0.039]	0.003 [-0.018, 0.024]	0.051 [-0.120, 0.222]	0.068 [-0.107, 0.243]	-0.061 [-0.225, 0.103]
Sex X Age	0.271 [0.059, 0.482]	-0.056 [-0.283, 0.172]	0.013 [-0.171, 0.198]	0.132 [-0.033, 0.297]	0.009 [-0.166, 0.184]	-0.107 [-0.272, 0.059]	0.059 [-0.142, 0.260]	-0.050 [-0.286, 0.186]	-0.014 [-0.042, 0.013]	-0.008 [-0.029, 0.012]	0.012 [-0.159, 0.184]	-0.022 [-0.196, 0.152]	0.039 [-0.125, 0.203]
Year X Sex X Age	-0.384 [-0.680, -0.088]	-0.175 [-0.504, 0.153]	0.045 [-0.214, 0.305]	-0.119 [-0.359, 0.121]	0.122 [-0.136, 0.380]	-0.025 [-0.271, 0.220]	-0.137 [-0.434, 0.161]	0.285 [-0.058, 0.627]	0.023 [-0.017, 0.063]	-0.001 [-0.031, 0.029]	-0.168 [-0.424, 0.089]	0.033 [-0.223, 0.289]	0.038 [-0.205, 0.281]

Supplementary Table 7. Estimates and 95% confidence intervals from multilevel modeling testing the differences in well-being by exposure to the Syria conflict.

	Problems	Pain	Rested	Health Care	Cannot Afford Food	Cannot Afford Shelter	Life Sat.	Hope	Pos. Emot.	Neg. Emot.	Support	Respect	Freedom
Differences in Well-being by Exposure Status (2013-2015)													
N	2024	1995	1657	1913	1626	1742	1951	1846	2024	2024	1673	1747	1707
Intercept	-1.775	-1.773	-0.508	-0.474	0.058	-0.579	2.751	5.725	0.404	0.653	0.299	0.448	-0.216
	[-2.038; -1.511]	[-2.096; -1.451]	[-0.742; -0.275]	[-0.817; -0.130]	[-0.152; 0.268]	[-0.809; -0.349]	[2.497; 3.004]	[5.385; 6.066]	[0.371; 0.438]	[0.627; 0.678]	[0.073; 0.525]	[0.237; 0.659]	[-0.423; -0.008]
Year	0.245	0.169	-0.109	-0.185	-0.196	-0.174	0.839	-0.828	-0.030	-0.056	-0.573	-0.099	0.239
	[-0.092; 0.583]	[-0.182; 0.520]	[-0.399; 0.181]	[-0.458; 0.087]	[-0.474; 0.081]	[-0.453; 0.105]	[0.513; 1.165]	[-1.201; -0.456]	[-0.074; 0.015]	[-0.089; -0.023]	[-0.849; -0.296]	[-0.372; 0.174]	[-0.028; 0.505]
Sex	0.057	-0.007	0.010	0.069	0.168	0.475	0.020	0.159	-0.047	-0.025	0.071	0.178	0.014
	[-0.289; 0.404]	[-0.364; 0.350]	[-0.271; 0.292]	[-0.200; 0.339]	[-0.113; 0.448]	[0.200; 0.750]	[-0.303; 0.343]	[-0.211; 0.530]	[-0.091; -0.003]	[-0.058; 0.008]	[-0.202; 0.344]	[-0.098; 0.454]	[-0.252; 0.279]
Age	-0.083	0.059	-0.067	0.007	-0.038	0.070	-0.073	0.015	-0.010	0.000	0.061	0.004	0.003
	[-0.242; 0.077]	[-0.089; 0.208]	[-0.193; 0.058]	[-0.107; 0.122]	[-0.159; 0.083]	[-0.050; 0.190]	[-0.212; 0.065]	[-0.149; 0.178]	[-0.030; 0.009]	[-0.014; 0.015]	[-0.056; 0.179]	[-0.116; 0.123]	[-0.110; 0.115]
Exposure	0.037	-0.010	0.030	0.080	0.327	0.202	-0.176	-0.333	0.002	0.013	-0.011	-0.212	0.059
	[-0.203; 0.277]	[-0.263; 0.243]	[-0.173; 0.234]	[-0.111; 0.272]	[0.127; 0.526]	[0.005; 0.399]	[-0.408; 0.057]	[-0.597; -0.069]	[-0.029; 0.034]	[-0.011; 0.037]	[-0.208; 0.186]	[-0.408; -0.017]	[-0.133; 0.251]
Year X Sex	-0.243	-0.418	0.090	0.306	-0.409	-0.568	-0.094	0.250	0.015	0.037	0.117	-0.045	-0.562
	[-0.727; 0.240]	[-0.928; 0.091]	[-0.314; 0.493]	[-0.074; 0.687]	[-0.804; -0.013]	[-0.960; -0.176]	[-0.555; 0.367]	[-0.274; 0.774]	[-0.047; 0.078]	[-0.010; 0.085]	[-0.276; 0.510]	[-0.434; 0.344]	[-0.943; -0.181]
Year X Age	0.303	0.120	0.047	0.034	-0.066	-0.004	0.073	-0.141	0.011	0.003	0.062	0.078	-0.071
	[0.093; 0.513]	[-0.085; 0.325]	[-0.135; 0.230]	[-0.134; 0.201]	[-0.242; 0.110]	[-0.176; 0.168]	[-0.131; 0.277]	[-0.374; 0.092]	[-0.017; 0.039]	[-0.018; 0.024]	[-0.109; 0.233]	[-0.096; 0.252]	[-0.236; 0.095]
Sex X Age	0.271	-0.059	0.022	0.145	0.003	-0.127	0.066	-0.059	-0.014	-0.008	0.016	-0.031	0.033
	[0.059; 0.482]	[-0.281; 0.164]	[-0.158; 0.201]	[-0.021; 0.311]	[-0.173; 0.180]	[-0.296; 0.042]	[-0.134; 0.267]	[-0.291; 0.174]	[-0.042; 0.013]	[-0.029; 0.012]	[-0.157; 0.189]	[-0.205; 0.143]	[-0.129; 0.195]
Year X Sex X Age	-0.384	-0.173	0.045	-0.133	0.174	-0.023	-0.153	0.302	0.023	-0.001	-0.216	0.049	0.046
	[-0.680; -0.088]	[-0.498; 0.152]	[-0.214; 0.304]	[-0.374; 0.107]	[-0.082; 0.430]	[-0.274; 0.228]	[-0.448; 0.142]	[-0.032; 0.636]	[-0.017; 0.063]	[-0.031; 0.029]	[-0.468; 0.037]	[-0.203; 0.301]	[-0.196; 0.287]

Supplementary Table 8. Summary of the additive and multiplicative interaction terms testing social support as an effect modifier of temporal changes in well-being.

	Year					
	2008			2015		
	N	OR	95%CI	N	OR	95%CI
Health Problems						
No Social Support	81/300		Reference	71/429	0.63	(0.42, 0.94)
Social Support	186/885	0.68	(0.52, 0.88)	69/368	0.58	(0.36, 0.95)
Measure of interaction on additive scale				RERI (95% CI) =		0.28 (-0.04, 0.59)
Measure of interaction on multiplicative scale				Ratio of ORs (95% CI) =		1.37 (0.88, 1.86)
Physical Pain						
No Social Support	120/299		Reference	61/429	0.17	(0.12, 0.24)
Social Support	289/884	0.69	(0.56, 0.84)	51/368	0.19	(0.12, 0.28)
Measure of interaction on additive scale				RERI (95% CI) =		0.33 (0.16,0.49)
Measure of interaction on multiplicative scale				Ratio of ORs (95% CI) =		1.59 (1.17,2.01)
Well-restedness						
No Social Support	177/298		Reference	141/358	0.65	(0.48, 0.88)
Social Support	568/874	1.46	(1.22, 1.75)	109/295	0.57	(0.40, 0.80)
Measure of interaction on additive scale				RERI (95% CI) =		-0.54 (-0.90, -0.18)
Measure of interaction on multiplicative scale				Ratio of ORs (95% CI) =		0.60 (0.26, 0.94)
Health Care						
No Social Support	158/297		Reference	171/418	0.43	(0.32, 0.58)
Social Support	520/869	1.82	(1.52, 2.19)	130/353	0.40	(0.28, 0.56)
Measure of interaction on additive scale				RERI (95% CI) =		-0.86 (-1.24, -0.48)
Measure of interaction on multiplicative scale				Ratio of ORs (95% CI) =		0.50 (0.15, 0.85)
Food						
No Social Support	60/294		Reference	162/346	2.80	(2.03, 3.87)
Social Support	90/881	0.49	(0.40, 0.61)	135/298	3.95	(2.70, 5.77)
Measure of interaction on additive scale				RERI (95% CI) =		1.65 (0.59, 2.72)
Measure of interaction on multiplicative scale				Ratio of ORs (95% CI) =		2.86 (2.48, 3.24)
Shelter						
No Social Support	54/295		Reference	129/386	2.20	(1.56, 3.11)
Social Support	76/881	0.68	(0.55, 0.86)	121/325	3.28	(2.23, 4.83)
Measure of interaction on additive scale				RERI (95% CI) =		1.39 (0.73, 2.05)
Measure of interaction on multiplicative scale				Ratio of ORs (95% CI) =		2.18 (1.79, 2.56)
Respect						
No Social Support	242/294		Reference	204/366	0.20	(0.14, 0.28)
Social Support	744/871	1.65	(1.32, 2.06)	175/315	0.18	(0.12, 0.27)
Measure of interaction on additive scale				RERI (95% CI) =		-0.67 (-1.06, -0.28)
Measure of interaction on multiplicative scale				Ratio of ORs (95% CI) =		0.54 (0.15, 0.93)

<u>Freedom</u>

No Social Support	180/278	Reference	159/374	0.32	(0.23, 0.44)
Social Support	517/854	1.24 (1.03, 1.50)	136/309	0.34	(0.24, 0.48)
Measure of interaction on additive scale			RERI (95% CI) =		-0.22 (-0.50, 0.05)
Measure of interaction on multiplicative scale			Ratio of ORs (95% CI) =		0.85 (0.50, 1.20)

Supplementary Table 9. Estimates and 95% confidence intervals from multiple imputations of multilevel models testing social support as an effect modifier of temporal changes in well-being in Syria.

	Problems	Pain	Rested	Health Care	Cannot Afford Food	Cannot Afford Shelter	Life Sat.	Hope	Pos. Emot.	Neg. Emot.	Respect	Freedom
Intercept	-1.336	-0.350	0.416	0.152	-0.943	-1.433	4.474	5.425	0.610	0.434	1.718	0.699
	[-1.602, -1.069]	[-0.555, -0.146]	[0.233, 0.598]	[-.062, 0.365]	[-1.153, -0.734]	[-1.655, -1.211]	[4.272, 4.677]	[5.170, 5.681]	[0.579, 0.641]	[0.406, 0.461]	[1.482, 1.953]	[0.515, 0.882]
Year	-0.469	-1.775	-0.433	-0.838	1.031	0.790	-1.598	-0.505	-0.191	0.233	-1.604	-1.145
	[-0.873, -0.065]	[-2.136, -1.415]	[-0.741, -0.126]	[-1.136, -0.539]	[0.709, 1.352]	[0.445, 1.134]	[-1.938, -1.258]	[-0.921, -0.089]	[-0.243, -0.139]	[0.190, 0.275]	[-1.947, -1.261]	[-1.458, -0.832]
Sex	0.250	0.236	0.047	-0.126	-0.263	-0.306	0.299	0.369	0.002	0.013	-0.278	-0.060
	[0.015, 0.485]	[0.062, 0.409]	[-0.117, 0.212]	[-0.286, 0.035]	[-0.467, -0.058]	[-0.512, -0.101]	[0.117, 0.480]	[0.145, 0.593]	[-0.026, 0.031]	[-0.010, 0.036]	[-0.485, -0.071]	[-0.229, 0.110]
Age	-0.037	0.166	0.037	-0.043	0.096	0.047	0.013	0.024	-0.012	0.014	-0.095	-0.008
	[-0.151, 0.077]	[0.083, 0.249]	[-0.042, 0.116]	[-0.120, 0.035]	[0.003, 0.189]	[-0.045, 0.140]	[-0.075, 0.101]	[-0.082, 0.129]	[-0.025, 0.002]	[0.003, 0.026]	[-0.195, 0.004]	[-0.089, 0.073]
Support	-0.386	-0.373	0.379	0.601	-0.709	-0.379	0.893	0.980	0.057	-0.158	0.500	0.215
	[-0.645, -0.126]	[-0.576, -0.170]	[0.196, 0.561]	[0.416, 0.786]	[-0.926, -0.492]	[-0.602, -0.156]	[0.682, 1.104]	[0.719, 1.242]	[0.025, 0.090]	[-0.185, -0.132]	[0.275, 0.724]	[0.025, 0.406]
Year X Sex	-0.550	-0.429	-0.072	0.322	0.247	0.451	-0.488	-0.289	-0.023	-0.011	0.505	-0.171
	[-0.989, -0.110]	[-0.800, -0.058]	[-0.398, 0.254]	[0.011, 0.633]	[-0.107, 0.600]	[0.079, 0.823]	[-0.830, -0.146]	[-0.701, 0.123]	[-0.076, 0.029]	[-0.054, 0.032]	[0.140, 0.869]	[-0.502, 0.160]
Year X Age	0.173	0.081	-0.163	0.093	-0.176	-0.034	-0.040	-0.075	0.019	-0.024	0.179	-0.001
	[-0.026, 0.372]	[-0.081, 0.243]	[-0.317, -0.009]	[-0.051, 0.237]	[-0.337, -0.016]	[-0.200, 0.132]	[-0.203, 0.123]	[-0.265, 0.116]	[-0.006, 0.044]	[-0.044, -0.003]	[0.005, 0.352]	[-0.154, 0.151]
Sex X Age	0.009	-0.032	-0.027	0.093	-0.132	-0.046	-0.042	-0.114	-0.018	-0.005	0.003	0.116
	[-0.153, 0.170]	[-0.149, 0.086]	[-0.140, 0.087]	[-0.017, 0.203]	[-0.270, 0.005]	[-0.185, 0.094]	[-0.167, 0.083]	[-0.267, 0.040]	[-0.037, 0.002]	[-0.021, 0.011]	[-0.136, 0.142]	[-0.001, 0.234]
Year X Support	0.314	0.463	-0.515	-0.690	1.052	0.777	-1.353	-1.335	-0.114	0.212	-0.611	-0.159
	[-0.178, 0.805]	[0.041, 0.886]	[-0.857, -0.174]	[-1.037, -0.342]	[0.672, 1.432]	[0.390, 1.164]	[-1.748, -0.958]	[-1.796, -0.875]	[-0.173, -0.054]	[0.163, 0.261]	[-1.000, -0.222]	[-0.508, 0.190]
Year X Sex X Age	0.048	-0.038	0.185	-0.105	0.250	-0.049	0.021	0.254	0.022	0.001	0.009	-0.162
	[-0.239, 0.336]	[-0.275, 0.198]	[-0.035, 0.404]	[-0.311, 0.101]	[0.012, 0.488]	[-0.297, 0.200]	[-0.211, 0.253]	[-0.024, 0.532]	[-0.013, 0.058]	[-0.028, 0.031]	[-0.233, 0.251]	[-0.385, 0.061]

Supplementary Table 10. Estimates and 95% confidence intervals from multilevel modeling testing social support as an effect modifier of temporal changes in well-being in Syria.

	Problems	Pain	Rested	Health Care	Cannot Afford Food	Cannot Afford Shelter	Life Sat.	Hope	Pos. Emot.	Neg. Emot.	Respect	Freedom
Social Support as an Effect Modifier												
N	6743	7691	8094	7463	7108	8174	8634	8018	8736	8734	7889	8136
Intercept	-1.374	-0.306	0.416	0.097	-0.798	-1.433	4.507	5.302	0.608	0.435	1.763	0.699
	[-1.662; -1.087]	[-0.511; -0.100]	[0.233; 0.598]	[-0.108; 0.302]	[-1.014; -0.583]	[-1.655; -1.211]	[4.303; 4.711]	[5.056; 5.549]	[0.576; 0.640]	[0.407; 0.462]	[1.518; 2.008]	[0.515; 0.882]
Year	-0.482	-1.946	-0.433	-0.873	0.791	0.790	-1.639	-0.355	-0.191	0.228	-1.717	-1.145
	[-0.903; -0.061]	[-2.319; -1.573]	[-0.741; -0.126]	[-1.177; -0.569]	[0.460; 1.123]	[0.445; 1.134]	[-1.984; -1.295]	[-0.769; 0.060]	[-0.244; -0.137]	[0.184; 0.272]	[-2.073; -1.361]	[-1.458; -0.832]
Sex	0.305	0.238	0.047	-0.115	-0.342	-0.306	0.314	0.376	-0.001	0.012	-0.336	-0.060
	[0.062; 0.547]	[0.062; 0.415]	[-0.117; 0.212]	[-0.278; 0.047]	[-0.549; -0.135]	[-0.512; -0.101]	[0.130; 0.498]	[0.154; 0.597]	[-0.030; 0.028]	[-0.012; 0.035]	[-0.547; -0.124]	[-0.229; 0.110]
Age	-0.036	0.154	0.037	-0.041	0.133	0.047	0.013	0.017	-0.013	0.016	-0.113	-0.008
	[-0.153; 0.081]	[0.070; 0.237]	[-0.042; 0.116]	[-0.120; 0.037]	[0.038; 0.228]	[-0.045; 0.140]	[-0.076; 0.102]	[-0.089; 0.122]	[-0.027; 0.000]	[0.005; 0.027]	[-0.214; -0.011]	[-0.089; 0.073]
Support	-0.391	-0.414	0.379	0.661	-0.867	-0.379	0.898	1.121	0.063	-0.162	0.502	0.215
	[-0.648; -0.133]	[-0.615; -0.213]	[0.196; 0.561]	[0.479; 0.843]	[-1.080; -0.654]	[-0.602; -0.156]	[0.689; 1.106]	[0.867; 1.375]	[0.031; 0.095]	[-0.189; -0.136]	[0.275; 0.729]	[0.025; 0.406]
Year X Sex	-0.723	-0.436	-0.072	0.346	0.311	0.451	-0.495	-0.241	-0.005	-0.014	0.683	-0.171
	[-1.198; -0.248]	[-0.833; -0.040]	[-0.398; 0.254]	[0.021; 0.670]	[-0.063; 0.685]	[0.079; 0.823]	[-0.854; -0.135]	[-0.668; 0.186]	[-0.061; 0.051]	[-0.060; 0.032]	[0.302; 1.064]	[-0.502; 0.160]
Year X Age	0.186	0.125	-0.163	0.091	-0.269	-0.034	-0.040	-0.050	0.024	-0.029	0.233	-0.001
	[-0.024; 0.396]	[-0.044; 0.294]	[-0.317; -0.009]	[-0.059; 0.242]	[-0.439; -0.100]	[-0.200; 0.132]	[-0.209; 0.128]	[-0.247; 0.147]	[-0.002; 0.050]	[-0.051; -0.008]	[0.053; 0.413]	[-0.154; 0.151]
Sex X Age	0.002	-0.062	-0.027	0.101	-0.166	-0.046	-0.036	-0.108	-0.014	-0.007	-0.007	0.116
	[-0.163; 0.168]	[-0.181; 0.057]	[-0.140; 0.087]	[-0.011; 0.212]	[-0.310; -0.023]	[-0.185; 0.094]	[-0.163; 0.090]	[-0.260; 0.044]	[-0.034; 0.006]	[-0.023; 0.009]	[-0.148; 0.135]	[-0.001; 0.234]
Year X Support	0.316	0.595	-0.515	-0.831	1.437	0.777	-1.426	-1.658	-0.127	0.225	-0.640	-0.159
	[-0.168; 0.800]	[0.181; 1.008]	[-0.857; -0.174]	[-1.171; -0.491]	[1.057; 1.816]	[0.390; 1.164]	[-1.807; -1.044]	[-2.116; -1.200]	[-0.186; -0.068]	[0.177; 0.274]	[-1.035; -0.246]	[-0.508; 0.190]
Year X Sex X Age	0.067	0.043	0.185	-0.121	0.307	-0.049	0.006	0.249	0.014	0.010	0.044	-0.162
	[-0.238; 0.373]	[-0.204; 0.289]	[-0.035; 0.404]	[-0.337; 0.095]	[0.051; 0.562]	[-0.297; 0.200]	[-0.236; 0.247]	[-0.037; 0.536]	[-0.024; 0.051]	[-0.021; 0.041]	[-0.210; 0.298]	[-0.385; 0.061]

Supplementary Table 11. Descriptive statistics of well-being measures for Syria and the World with Syria's rank of well-being among 163 countries.

Variables	Measure	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Number of Participants		129037	104755	133501	139049	155861	198400	231460	138171	190344	152256	149724
Number of Countries		123	96	121	115	124	148	142	136	148	141	141
Physical Well-being												
Health Problems	World	24.8%	24.5%	24.8%	25.8%	25.2%	23.9%	23.6%	24.0%	24.1%	24.3%	25.4%
	Syria			25.3%	23.2%	12.0%	12.0%	11.0%	15.0%		17.0%	
	Syria rank			67	44.5	**2**	**3**	1.5	8		21.5	
Physical Pain	World	27.0%	25.5%	26.9%	27.3%	26.9%	28.4%	29.4%	30.5%	31.1%	31.0%	33.0%
	Syria			38.0%	33.0%	16.2%	26.3%	16.3%	14.4%		15.0%	
	Syria rank			107	91.5	10	62.5	7	**2**		**1.5**	
Well-Rested	World	65.2%	66.8%	66.9%	68.3%	69.6%	67.8%	67.6%	66.2%	66.3%	66.8%	66.7%
	Syria			56.6%	65.7%	60.2%	66.7%	64.3%	37.8%		35.8%	
	Syria rank			102	77	98.5	82.5	90.5	**136***		**141***	
Satisfactory Access to Health Care	World	56.5%	56.5%	56.5%	56.5%	56.5%	56.5%	56.5%	56.5%	56.5%	56.5%	56.5%
	Syria			54.1%	68.4%	77.1%	38.9%	31.9%	39.8%		39.2%	
	Syria rank			71	32	22	113	119	101		110.5	
Cannot Afford Food	World	29.6%	30.7%	32.1%	30.8%	30.5%	32.2%	31.7%	33.7%	33.7%	33.8%	36.0%
	Syria			16.5%	16.0%		37.1%	41.9%	57.0%		48.1%	
	Syria rank			36	28.5		91	98	112		98	
Cannot Afford Shelter	World	19.7%	21.0%	20.0%	20.3%	21.2%	21.4%	22.9%	23.4%	23.8%	23.8%	26.8%
	Syria			13.4%	20.0%	25.5%	19.6%	29.9%	44.6%		34.8%	
	Syria rank			48	62	78.5	73	98	119		106	
Mental Well-being												
Average Life Satisfaction	World	5.4	5.5	5.5	5.5	5.5	5.4	5.5	5.4	5.4	5.4	5.4
(0 to 10)	Syria			5.3	5.0	4.5	4.0	3.2	2.7		3.5	
	Syria rank			56	76	97.5	133.5	**141.5***	**135***		**138**	
Average Hope	World	6.8	6.8	6.7	6.7	6.7	6.7	6.7	6.7	6.8	6.8	6.8
(0 to 10)	Syria			6.3	6.3	5.7	5.2	5.4	5.6		4.9	
	Syria rank			74	71.5	104	133.5	123	112.5		**133**	
Positive Emotions	World	71.5%	71.9%	70.7%	70.6%	70.9%	70.4%	70.9%	70.9%	70.9%	71.0%	71.2%
	Syria			62.6%	58.4%	53.5%	65.2%	48.4%	38.8%		37.0%	
	Syria rank			88	94	112	98.5	**140**	**136***		**141***	
Negative Emotions	World	26.6%	24.9%	25.0%	25.1%	25.0%	26.0%	27.3%	28.7%	28.6%	29.4%	30.1%
	Syria			37.7%	32.5%	26.7%	51.2%	66.6%	64.8%		62.5%	
	Syria rank			110	98	76	**147**	**142***	**136***		**141***	
Social Well-being												
Social Support	World	84.8%	80.9%	79.0%	82.0%	83.2%	80.2%	80.7%	80.5%	80.4%	79.6%	81.0%
	Syria			71.7%	84.0%	92.8%	57.9%	58.7%	58.8%		46.8%	
	Syria rank			86.5	54.5	20	137	135	129		**140**	
Respect	World	85.2%	84.4%	85.0%	87.0%	88.0%	86.9%	87.1%	86.2%	86.0%	87.0%	87.9%

		C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	Syria			80.8%	91.9%	87.8%	78.8%	67.9%	61.4%		57.6%	
	Syria rank			81	37	77	130	**138**	**134**		**141***	
Freedom	World	73.5%	70.7%	69.2%	68.9%	70.9%	73.4%	71.2%	72.8%	73.7%	74.9%	76.4%
	Syria			65.6%	75.0%	65.2%	52.8%	47.1%	46.0%		45.3%	
	Syria rank			62	44	83	132	130	128		**134**	

Note. Bolded numbers highlight years when Syria ranked in the top or bottom 5 in a specific wave. Asterisks highlight years when Syria ranked the lowest in the sample.

Supplementary Table 12. Estimates and 95% confidence intervals of physical, mental, and social well-being in WHO regions and Syria in 2006-2016.

	Health Problems	Pain	Rested	Health Care	Cannot Afford Food	Cannot Afford Shelter	Life Sat.	Hope	Pos. Emot.	Neg. Emot.	Support	Respect	Freedom
Number of countries	162	163	163	163	162	162	163	156	163	163	162	163	163
Number of observations	1419	1422	1422	1422	1407	1407	1424	1346	1428	1424	1420	1425	1397
Intercept	0.203	0.330	0.673	0.641	0.166	0.155	5.095	6.226	0.643	0.315	0.834	0.903	0.701
	[0.096; 0.309]	[0.206; 0.454]	[0.528; 0.818]	[0.309; 0.974]	[-0.113; 0.446]	[-0.096; 0.406]	[3.335; 6.855]	[4.615; 7.838]	[0.467; 0.818]	[0.192; 0.439]	[0.629; 1.040]	[0.757; 1.049]	[0.419; 0.983]
Year	-0.084	-0.228	-0.268	-0.317*	0.409	0.253	-2.375	-1.331	-0.274	0.386	-0.360	-0.337	-0.298
	[-0.194; 0.026]	[-0.348; -0.108]	[-0.384; -0.152]	[-0.515; -0.118]	[0.216; 0.602]	[0.064; 0.441]	[-3.403; -1.348]	[-2.518; -0.145]	[-0.388; -0.159]	[0.267; 0.506]	[-0.490; -0.231]	[-0.435; -0.239]	[-0.498; -0.098]
Africa	0.058	-0.035	-0.009	-0.250	0.387	0.138	-0.738	0.382	0.030	-0.102	-0.121	-0.083	-0.052
	[-0.050; 0.166]	[-0.160; 0.090]	[-0.155; 0.138]	[-0.587; 0.086]	[0.104; 0.669]	[-0.116; 0.393]	[-2.521; 1.045]	[-1.251; 2.016]	[-0.148; 0.207]	[-0.227; 0.024]	[-0.329; 0.087]	[-0.231; 0.064]	[-0.337; 0.233]
America	0.022	-0.048	0.043	-0.039	0.170	0.027	0.980	1.029	0.157	-0.042	0.033	0.002	0.041
	[-0.087; 0.130]	[-0.174; 0.078]	[-0.104; 0.190]	[-0.377; 0.300]	[-0.114; 0.455]	[-0.228; 0.283]	[-0.811; 2.771]	[-0.613; 2.671]	[-0.021; 0.336]	[-0.167; 0.084]	[-0.176; 0.242]	[-0.147; 0.150]	[-0.246; 0.328]
SE. Asia	0.053	-0.082	0.040	0.033	0.059	0.015	-0.199	0.270	0.112	-0.100	-0.088	-0.189	0.005
	[-0.060; 0.167]	[-0.214; 0.049]	[-0.114; 0.193]	[-0.320; 0.386]	[-0.238; 0.355]	[-0.252; 0.282]	[-2.068; 1.669]	[-1.442; 1.981]	[-0.074; 0.298]	[-0.231; 0.031]	[-0.306; 0.130]	[-0.344; -0.034]	[-0.295; 0.304]
Europe	0.058	-0.075	-0.049	-0.017	0.025	0.004	0.798	0.444	0.040	-0.058	0.037	-0.023	0.009
	[-0.050; 0.165]	[-0.199; 0.050]	[-0.195; 0.097]	[-0.353; 0.318]	[-0.257; 0.307]	[-0.250; 0.257]	[-0.979; 2.575]	[-1.183; 2.071]	[-0.137; 0.217]	[-0.183; 0.067]	[-0.170; 0.244]	[-0.170; 0.124]	[-0.276; 0.293]
E. Mediterranean	0.036	0.004	0.011	-0.089	0.068	0.056	0.304	0.495	0.013	-0.007	-0.052	-0.036	-0.034
	[-0.073; 0.146]	[-0.123; 0.131]	[-0.137; 0.160]	[-0.430; 0.251]	[-0.219; 0.354]	[-0.202; 0.313]	[-1.500; 2.108]	[-1.159; 2.148]	[-0.167; 0.193]	[-0.134; 0.120]	[-0.263; 0.159]	[-0.186; 0.113]	[-0.323; 0.255]
W. Pacific	0.017	-0.120	0.048	0.065	0.078	0.042	0.379	0.438	0.095	-0.073	-0.022	-0.099	0.096
	[-0.093; 0.127]	[-0.248; 0.007]	[-0.101; 0.197]	[-0.278; 0.408]	[-0.210; 0.366]	[-0.217; 0.301]	[-1.437; 2.196]	[-1.228; 2.103]	[-0.086; 0.276]	[-0.200; 0.054]	[-0.234; 0.190]	[-0.250; 0.051]	[-0.195; 0.386]
Year X Africa	0.111	0.307	0.263	0.333	-0.376	-0.155	2.240	1.402	0.282	-0.311	0.362	0.347	0.348
	[-0.000; 0.222]	[0.186; 0.428]	[0.146; 0.380]	[0.132; 0.534]	[-0.572; -0.181]	[-0.345; 0.036]	[1.201; 3.279]	[0.201; 2.602]	[0.167; 0.398]	[-0.432; -0.190]	[0.231; 0.493]	[0.248; 0.445]	[0.146; 0.551]
Year X America	0.073	0.276	0.259	0.264	-0.367	-0.200	2.483	1.623	0.280	-0.343	0.341	0.348	0.347
	[-0.039; 0.184]	[0.154; 0.397]	[0.142; 0.376]	[0.062; 0.465]	[-0.563; -0.170]	[-0.391; -0.009]	[1.441; 3.525]	[0.418; 2.828]	[0.164; 0.396]	[-0.464; -0.222]	[0.210; 0.472]	[0.249; 0.447]	[0.144; 0.549]
Year X SE. Asia	0.088	0.310	0.277	0.380	-0.305	-0.160	2.415	1.429	0.287	-0.345	0.377	0.412	0.413
	[-0.027; 0.203]	[0.185; 0.436]	[0.157; 0.398]	[0.170; 0.590]	[-0.509; -0.101]	[-0.359; 0.039]	[1.336; 3.495]	[0.182; 2.675]	[0.167; 0.407]	[-0.470; -0.220]	[0.242; 0.513]	[0.310; 0.513]	[0.203; 0.624]
Year X Europe	0.071	0.243	0.286	0.330	-0.407	-0.254	2.446	1.275	0.284	-0.377	0.357	0.352	0.331
	[-0.040; 0.182]	[0.123; 0.364]	[0.170; 0.403]	[0.130; 0.530]	[-0.601; -0.212]	[-0.444; -0.065]	[1.411; 3.481]	[0.080; 2.469]	[0.169; 0.399]	[-0.497; -0.256]	[0.227; 0.488]	[0.253; 0.450]	[0.129; 0.532]
Year X E. Mediterranean	0.053	0.277	0.246	0.305	-0.312	-0.203	2.182	1.256	0.259	-0.346	0.315	0.364	0.319

[-0.059; 0.166]	[0.155; 0.400]	[0.128; 0.364]	[0.102; 0.509]	[-0.510; -0.114]	[-0.396; -0.010]	[1.132; 3.232]	[0.042; 2.470]	[0.142; 0.376]	[-0.469; -0.224]	[0.183; 0.447]	[0.265; 0.464]	[0.114; 0.524]
0.092	0.266	0.287	0.329	-0.374	-0.201	2.518	1.506	0.293	-0.364	0.361	0.368	0.325
[-0.021; 0.204]	[0.143; 0.388]	[0.168; 0.405]	[0.126; 0.533]	[-0.572; -0.176]	[-0.395; -0.008]	[1.467; 3.569]	[0.290; 2.722]	[0.176; 0.410]	[-0.486; -0.242]	[0.229; 0.493]	[0.269; 0.468]	[0.120; 0.530]

Year X W. Pacific (row label aligned with values 0.092, 0.266, 0.287, 0.329, -0.374, -0.201, 2.518, 1.506, 0.293, -0.364, 0.361, 0.368, 0.325)

Supplementary Table 13. Estimated changes and 95% confidence intervals of physical, mental, and social well-being in WHO regions and Syria in 2006-2016.

		Syria	E. Mediterranean	Africa	America	SE. Asia	Europe	W. Pacific
Health Problems		-0.084	**-0.031**	0.027	-0.011	0.004	-0.013	-0.008
	Lower CI	-0.194	-0.054	0.011	-0.029	-0.031	-0.026	-0.016
	Upper CI	0.026	-0.008	0.043	0.007	0.038	0.000	0.032
Pain		**-0.228**	**0.049**	**0.081**	**0.048**	**0.082**	**0.015**	**0.038**
	Lower CI	-0.349	0.024	0.064	0.029	0.045	0.001	0.013
	Upper CI	-0.108	0.074	0.098	0.067	0.119	0.029	0.063
Rested		**-0.268**	-0.022	-0.005	-0.009	0.009	0.018	0.019
	Lower CI	-0.384	-0.045	-0.021	-0.023	-0.025	0.006	-0.004
	Upper CI	-0.152	0.001	0.011	0.009	0.043	0.030	0.042
Health Care		**-0.317**	-0.012	0.017	**-0.053**	0.063	0.015	0.012
	Lower CI	-0.516	-0.057	-0.014	-0.088	-0.005	-0.010	-0.034
	Upper CI	-0.117	0.033	0.048	-0.005	0.131	0.040	0.058
Cannot Afford Food		**0.409**	**0.097**	**0.015**	**0.042**	**0.104**	0.003	0.035
	Lower CI	0.214	0.055	0.005	0.008	0.039	-0.021	-0.009
	Upper CI	0.604	0.139	0.063	0.075	0.169	0.027	0.079
Cannot Afford Shelter		**0.253**	**0.050**	**0.099**	**0.053**	**0.093**	-0.001	**0.052**
	Lower CI	0.063	0.008	0.070	0.020	0.030	-0.024	0.009
	Upper CI	0.442	0.092	0.128	0.086	0.156	0.022	0.095
Life Satisfaction		**-2.375**	-0.193	-0.132	0.108	0.040	0.068	0.143
	Lower CI	-3.407	-0.410	-0.285	-0.063	-0.292	-0.052	-0.079
	Upper CI	-1.344	0.024	0.021	0.279	0.372	0.188	0.365
Hope		**-1.331**	-0.077	0.060	**0.291**	0.098	-0.057	0.175
	Lower CI	-2.526	-0.337	-0.124	0.079	-0.288	-0.198	-0.093
	Upper CI	-0.136	0.183	0.244	0.503	0.484	0.084	0.443
Positive Emotion		**-0.274**	-0.015	0.010	0.006	0.013	0.010	0.019
	Lower CI	-0.390	-0.147	-0.007	-0.012	-0.023	-0.003	-0.005
	Upper CI	-0.158	0.117	0.023	0.024	0.049	0.023	0.043
Negative Emotion		**0.386**	**0.040**	**0.075**	**0.043**	**0.041**	0.010	0.022
	Lower CI	0.267	0.015	0.058	0.024	0.004	-0.004	-0.003
	Upper CI	0.506	0.065	0.092	0.062	0.078	0.024	0.047
Support		**-0.360**	**-0.046**	0.000	-0.019	0.019	0.003	0.001
	Lower CI	-0.496	-0.075	-0.020	-0.041	-0.024	-0.012	-0.028
	Upper CI	-0.225	-0.017	0.020	0.003	0.062	0.018	0.030
Respect		**-0.298**	**0.021**	**0.051**	**0.049**	**0.116**	**0.032**	**0.027**
	Lower CI	-0.499	0.002	0.038	0.035	0.088	0.022	0.008
	Upper CI	-0.097	0.040	0.064	0.063	0.144	0.042	0.046
Freedom		**-0.337**	0.027	0.011	0.011	0.075	0.014	0.031
	Lower CI	-0.436	-0.017	-0.019	-0.023	0.010	-0.051	-0.014
	Upper CI	-0.238	0.071	0.041	0.045	0.140	0.079	0.076

Note. The 95%CI of bolded estimates exclude 0.

Supplementary Table 14. Estimates and 95% confidence intervals of physical, mental, and social well-being in Syria and countries that experiences war, protests, or disasters in 2006-2016.

	Health Problems	Pain	Rested	Health Care	Cannot Afford Food	Cannot Afford Shelter	Life Sat.	Hope	Pos. Emot.	Neg. Emot.	Support	Respect	Freedom
Number of countries	34	34	34	34	34	34	34	32	34	34	34	34	34
Number of observations	367	368	368	352	355	357	362	345	368	368	367	368	354
Intercept	0.167	0.232	0.558	0.506	0.341	0.263	4.077	5.656	0.525	0.481	0.680	0.759	0.573
	[0.051; 0.283]	[0.069; 0.395]	[0.430; 0.687]	[0.089; 0.922]	[-0.067; 0.750]	[-0.008; 0.535]	[2.010; 6.144]	[3.985; 7.327]	[0.349; 0.702]	[0.332; 0.630]	[0.449; 0.911]	[0.606; 0.912]	[0.318; 0.828]
Year to events	-0.084	-0.228	-0.268	-0.317	0.409	0.253	-2.375	-1.331	-0.274	0.386	-0.360	-0.337	-0.298
	[-0.179; 0.012]	[-0.354; -0.103]	[-0.394; -0.141]	[-0.525; -0.109]	[0.195; 0.623]	[0.066; 0.439]	[-3.454; -1.297]	[-2.580; -0.082]	[-0.384; -0.163]	[0.255; 0.518]	[-0.486; -0.235]	[-0.446; -0.228]	[-0.490; -0.106]
War-torn countries	0.074	0.079	0.083	0.058	0.059	0.016	1.068	1.094	0.125	-0.171	0.107	0.073	0.125
	[-0.046; 0.194]	[-0.089; 0.247]	[-0.050; 0.217]	[-0.367; 0.483]	[-0.359; 0.477]	[-0.262; 0.295]	[-1.047; 3.184]	[-0.627; 2.814]	[-0.056; 0.307]	[-0.325; -0.017]	[-0.131; 0.344]	[-0.084; 0.231]	[-0.138; 0.388]
Countries with major protests	0.085	0.066	0.125	0.028	0.009	-0.019	1.189	1.081	0.180	-0.211	0.104	0.087	0.141
	[-0.034; 0.204]	[-0.101; 0.234]	[-0.008; 0.257]	[-0.397; 0.452]	[-0.408; 0.425]	[-0.297; 0.258]	[-0.918; 3.296]	[-0.628; 2.790]	[-0.000; 0.361]	[-0.364; -0.059]	[-0.132; 0.340]	[-0.070; 0.243]	[-0.120; 0.403]
Countries with natural disasters	0.090	0.072	0.112	0.005	0.029	0.006	1.040	1.010	0.169	-0.205	0.089	0.074	0.116
	[-0.028; 0.208]	[-0.094; 0.238]	[-0.019; 0.243]	[-0.418; 0.428]	[-0.387; 0.444]	[-0.271; 0.282]	[-1.061; 3.141]	[-0.692; 2.711]	[-0.010; 0.349]	[-0.356; -0.053]	[-0.147; 0.324]	[-0.081; 0.230]	[-0.144; 0.376]
Year X War-torn	0.047	0.242	0.268	0.360	-0.364	-0.246	2.164	1.309	0.246	-0.375	0.393	0.373	0.322
	[-0.052; 0.146]	[0.112; 0.372]	[0.137; 0.399]	[0.144; 0.575]	[-0.586; -0.142]	[-0.440; -0.052]	[1.045; 3.284]	[0.008; 2.610]	[0.132; 0.360]	[-0.510; -0.239]	[0.264; 0.522]	[0.260; 0.485]	[0.124; 0.520]
Year X Protests	0.078	0.270	0.267	0.287	-0.373	-0.205	2.442	1.371	0.281	-0.352	0.348	0.356	0.323
	[-0.020; 0.176]	[0.141; 0.398]	[0.138; 0.397]	[0.072; 0.501]	[-0.594; -0.153]	[-0.398; -0.013]	[1.332; 3.553]	[0.085; 2.658]	[0.168; 0.394]	[-0.487; -0.217]	[0.220; 0.477]	[0.244; 0.468]	[0.126; 0.520]
Year X Disasters	0.076	0.270	0.278	0.350	-0.389	-0.222	2.405	1.253	0.265	-0.356	0.356	0.360	0.350
	[-0.021; 0.173]	[0.142; 0.397]	[0.150; 0.407]	[0.139; 0.562]	[-0.607; -0.171]	[-0.412; -0.031]	[1.307; 3.504]	[-0.020; 2.526]	[0.153; 0.377]	[-0.489; -0.222]	[0.229; 0.484]	[0.249; 0.471]	[0.155; 0.545]

Supplementary Table 15. Missing Data Pattern. Percentages represent the proportion of completed responses.

Wave	2008	2009.1	2009.2	2010.1	2010.2	2011.1	2011.2	2012.1	2012.2	2013	2015
Sample Size	1209	1082	1018	1029	1006	1011	1030	1025	1018	1022	1002
Sex	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Age	99.9%	100.0%	99.8%	99.9%	100.0%	100.0%	100.0%	100.0%	99.9%	100.0%	100.0%
Health Problems	99.3%	-	99.5%	99.7%	-	100.0%	100.0%	100.0%	-	100.0%	100.0%
Pain	99.4%	99.9%	99.8%	99.4%	-	99.3%	-	100.0%	96.0%	97.2%	100.0%
Well-rested	98.3%	99.6%	98.8%	98.1%	-	98.9%	98.3%	95.0%	75.0%	81.9%	81.8%
Health Care	97.9%	98.2%	-	95.7%	-	95.6%	94.6%	-	94.0%	92.4%	96.7%
Cannot Afford Food	98.7%	99.9%	-	-	-	97.6%	97.0%	89.1%	84.0%	79.0%	81.7%
Cannot Afford Shelter	98.8%	99.9%	99.6%	98.0%	-	96.6%	97.5%	89.0%	84.0%	83.2%	89.0%
Life Satisfaction	99.8%	100.0%	99.7%	98.7%	99.0%	100.0%	99.7%	98.2%	97.5%	96.7%	96.1%
Hope	83.5%	92.2%	77.3%	82.9%	82.7%	99.0%	98.8%	96.9%	91.3%	90.8%	91.6%
Positive Emotion	99.7%	99.8%	97.8%	100.0%	98.1%	100.0%	100.0%	99.6%	99.6%	100.0%	100.0%
Negative Emotion	99.7%	99.9%	99.6%	99.8%	-	100.0%	100.0%	100.0%	99.0%	100.0%	100.0%
Support	98.4%	99.4%	-	96.5%	-	95.2%	94.8%	93.6%	91.0%	85.7%	79.5%
Respect	97.8%	99.4%	99.1%	97.8%	98.4%	99.4%	98.9%	84.0%	86.1%	84.0%	84.7%
Freedom	95.2%	97.1%	94.9%	92.4%	93.3%	83.1%	95.2%	81.0%	90.0%	87.4%	85.2%
Exposure Status											
Internally Displaced (Self)	-	-	-	-	-	-	-	-	-	91.2%	90.9%
Internally Displaced to the Same Governorate (Family)	-	-	-	-	-	-	-	-	-	88.3%	91.7%
Internally Displaced to a Different Governorate (Family)	-	-	-	-	-	-	-	-	-	88.9%	91.7%
Internally Displaced to Somewhere outside Syria (Family)	-	-	-	-	-	-	-	-	-	88.5%	91.7%
Died (Family)	-	-	-	-	-	-	-	-	-	84.2%	87.8%
Injured (Family)	-	-	-	-	-	-	-	-	-	85.6%	88.3%
Household Lost Main Source of Income	-	-	-	-	-	-	-	-	-	98.1%	86.9%

Notes. '–' indicates that the measure was not included in a specific survey. In 2009, 2010, 2011, and 2012, Gallup conducted 2 surveys in the same calendar year, and each survey can include different items. The suffices, '.1' or '.2', refers to the first or the second survey in the same year.