

Table S1. ICD codes for CVD and CHD mortality data

Cause	Code	Detailed List Numbers	CVD	CHD
ICD-7				
Vascular lesions affecting central nervous system	A070	330-334	*	
Rheumatic fever	A079	400-402	*	
Chronic rheumatic heart disease	A080	410-416	*	
Arteriosclerotic and degenerative heart disease	A081	420-422	*	*
Other diseases of heart	A082	430-434	*	
Hypertension with heart disease	A083	440-443	*	
Hypertension without mention of heart	A084	444-447	*	
Diseases of arteries	A085	450-456	*	
Other diseases of circulatory system	A086	460-468	*	
Acute upper respiratory infections	A087	470-475	*	
ICD-8				
Chronic rheumatic heart disease	A081	393-398	*	
Hypertensive disease	A082	400-404	*	
Ischaemic heart disease	A083	410-414	*	*
Other forms of heart disease	A084	420-429	*	
Cerebrovascular disease	A085	430-438	*	
ICD-9				
Chronic rheumatic heart disease	B251	393-398	*	
Hypertensive disease	B26	401-405	*	
Ischaemic heart disease	B27	410-414	*	*
Diseases of pulmonary circulation and other forms of heart disease	B28	415-429	*	
Cerebrovascular disease	B29	430-438	*	
ICD-10				
Ischaemic heart diseases	I067	I20-I25	*	*
Other heart diseases	I068	I26-I51	*	
Cerebrovascular diseases	I069	I60-I69	*	

Table S2.: Fisher-type ADF panel unit root tests of H0: all panels contain unit roots against H1: at least one panel is stationary

	Heart Disease type	Age Group	Inverse chi-squared		Inverse normal (Z)		Inverse logit (L)		Modified inv. chi-squared (Pm)	
			Statistic	P-value	Statistic	P-value	Statistic	P-value	Statistic	P-value
GDP			7.319	1.000	10.630	1.000	11.761	1.000	-5.010	1.000
Unemployment			53.498	0.822	0.624	0.734	0.556	0.710	-0.928	0.823
Males	CVD	20-64	54.336	0.800	2.250	0.988	2.376	0.991	-0.854	0.803
		20-34	65.340	0.430	-0.592	0.277	-0.595	0.276	0.118	0.453
		35-49	28.009	1.000	5.826	1.000	5.961	1.000	-3.181	0.999
		50-64	39.898	0.992	6.899	1.000	6.920	1.000	-2.130	0.983
		65+	63.856	0.482	-0.505	0.307	-0.529	0.299	-0.013	0.505
	CHD	20-64	68.315	0.333	0.681	0.752	0.657	0.744	0.381	0.351
		20-34	64.014	0.476	-0.466	0.320	-0.506	0.307	0.001	0.500
		35-49	26.491	1.000	5.422	1.000	5.508	1.000	-3.315	1.000
		50-64	23.537	1.000	7.335	1.000	7.908	1.000	-3.576	1.000
		65+	17.311	1.000	8.076	1.000	8.794	1.000	-4.127	1.000
Females	CVD	20-64	40.886	0.989	4.332	1.000	4.615	1.000	-2.043	0.979
		20-34	76.479	0.136	-0.207	0.418	-0.447	0.328	1.103	0.135
		35-49	70.028	0.282	0.855	0.804	0.890	0.813	0.533	0.297
		50-64	35.015	0.999	4.809	1.000	5.084	1.000	-2.562	0.995
		65+	73.211	0.201	0.525	0.700	0.069	0.527	0.814	0.208
	CHD	20-64	62.436	0.532	1.061	0.856	1.201	0.884	-0.138	0.555
		20-34	63.931	0.479	0.658	0.745	0.560	0.712	-0.006	0.502
		35-49	72.247	0.224	1.372	0.915	1.125	0.869	0.729	0.233
		50-64	69.568	0.296	-0.239	0.406	-0.042	0.483	0.492	0.311
		65+	29.177	1.000	4.421	1.000	4.449	1.000	-3.078	0.999

Table S3. Westerlund panel cointegration tests of H0: no cointegration for panels against H1: cointegration for all panels

		Males				Females			
		CVD		CHD		CVD		CHD	
Country group		Est	P-Value	Est	P-Value	Est	P-Value	Est	P-Value
20-64	1. Eastern European countries	-1.043	0.149	-0.449	0.327	-1.070	0.142	-0.449	0.327
	2. Southern European countries	-0.292	0.385	-0.323	0.373	-0.402	0.344	-0.323	0.373
	3. Anglo-Saxon countries and Japan	0.822	0.205	0.758	0.224	0.964	0.167	0.758	0.224
	4. Bismarckian countries	-0.583	0.280	-0.444	0.329	0.275	0.392	-0.444	0.329
	5. Scandinavian countries	-0.470	0.319	-0.365	0.357	-0.163	0.435	-0.365	0.357
	All countries	-0.636	0.263	-0.528	0.299	-0.674	0.250	-0.528	0.299
20-34	1. Eastern European countries	-1.460	0.072	-2.993	0.001	-3.260	0.001	-2.993	0.001
	2. Southern European countries	-0.850	0.198	-0.683	0.247	-0.994	0.160	-0.683	0.247
	3. Anglo-Saxon countries and Japan	-1.009	0.156	-1.281	0.100	-1.159	0.123	-1.281	0.100
	4. Bismarckian countries	-0.961	0.168	-1.545	0.061	-1.027	0.152	-1.545	0.061
	5. Scandinavian countries	-1.254	0.105	-1.212	0.113	-1.402	0.081	-1.212	0.113
	All countries	-5.382	0.000	-4.662	0.000	-6.061	0.000	-4.662	0.000
35-49	1. Eastern European countries	-1.188	0.118	-0.983	0.163	-2.354	0.009	-0.983	0.163
	2. Southern European countries	-0.434	0.332	-0.438	0.331	-0.408	0.341	-0.438	0.331
	3. Anglo-Saxon countries and Japan	-0.852	0.197	0.256	0.399	0.652	0.257	0.256	0.399
	4. Bismarckian countries	-0.947	0.172	-0.714	0.238	-0.201	0.420	-0.714	0.238
	5. Scandinavian countries	-0.580	0.281	-0.325	0.373	-0.793	0.214	-0.325	0.373
	All countries	-3.066	0.001	-1.200	0.115	-1.477	0.070	-1.200	0.115
50-64	1. Eastern European countries	-1.072	0.142	-0.301	0.382	-1.081	0.140	-0.301	0.382
	2. Southern European countries	-0.239	0.406	-0.301	0.382	-0.419	0.338	-0.301	0.382
	3. Anglo-Saxon countries and Japan	1.382	0.084	0.690	0.245	0.770	0.221	0.690	0.245
	4. Bismarckian countries	-0.564	0.287	-0.416	0.339	0.208	0.418	-0.416	0.339
	5. Scandinavian countries	-0.640	0.261	-0.641	0.261	-0.206	0.418	-0.641	0.261
	All countries	-0.448	0.327	-0.479	0.316	-0.766	0.222	-0.479	0.316
65+	1. Eastern European countries	-0.294	0.384	-0.171	0.432	0.067	0.473	-0.171	0.432
	2. Southern European countries	-0.307	0.379	-0.734	0.232	-0.329	0.371	-0.734	0.232
	3. Anglo-Saxon countries and Japan	1.067	0.143	1.166	0.122	1.079	0.140	1.166	0.122
	4. Bismarckian countries	-0.446	0.328	-0.530	0.298	-0.290	0.386	-0.530	0.298
	5. Scandinavian countries	-0.557	0.289	-0.839	0.201	-0.687	0.246	-0.839	0.201
	All countries	-0.349	0.363	0.140	0.444	-0.403	0.343	0.140	0.444

Table S4. Estimated effects (ARIMA models) of unemployment and GDP on CVD and CHD mortality rates per 100 000 (total population 20–64 years). Semi-logarithmic models estimated on differenced time-series data

Country group	Country	N	CVD							N	CHD								
			GDP			Unemployment					Model*	GDP			Unemployment				Model*
			Est	SE	P	Est	SE	P	Est			SE	P	Est	SE	P			
1. Eastern European countries	Bulgaria	20	-0.033	0.041	0.411	0.003	0.007	0.676	(0,1,0)	20	-0.026	0.032	0.413	0.000	0.005	0.968	(0,1,0)		
	Croatia	24	0.011	0.017	0.521	-0.009	0.006	0.134	(0,1,0)	24	-0.001	0.022	0.956	-0.006	0.010	0.570	(0,1,0)		
	Czech Republic	22	-0.006	0.017	0.735	-0.011	0.012	0.384	(0,1,0)	22	0.012	0.016	0.461	-0.003	0.012	0.802	(0,1,0)		
	Estonia	25	-0.004	0.025	0.881	0.003	0.013	0.824	(0,1,0)	25	-0.010	0.027	0.714	0.004	0.014	0.764	(0,1,0)		
	Hungary	23	-0.007	0.025	0.778	0.004	0.006	0.437	(0,1,0)	23	-0.033	0.039	0.397	0.007	0.008	0.359	(0,1,0)		
	Latvia	23	0.000	0.048	0.997	0.005	0.012	0.682	(0,1,0)	23	0.014	0.039	0.710	0.005	0.012	0.662	(0,1,0)		
	Lithuania	21	0.031	0.031	0.320	-0.004	0.008	0.664	(0,1,0)	21	0.028	0.052	0.583	0.001	0.012	0.958	(0,1,0)		
	Poland	20	0.020	0.017	0.229	-0.007	0.022	0.757	(1,1,0)	20	0.009	0.022	0.672	-0.020	0.023	0.380	(0,1,0)		
	Romania	25	-0.024	0.024	0.318	0.004	0.006	0.468	(0,1,0)	25	-0.028	0.023	0.217	0.006	0.007	0.411	(0,1,0)		
	Slovakia	18	0.040	0.032	0.212	0.015	0.039	0.701	(0,1,0)	18	0.034	0.024	0.156	-0.003	0.036	0.930	(0,1,0)		
Slovenia	19	0.008	0.029	0.789	-0.013	0.024	0.600	(0,1,0)	19	-0.013	0.039	0.734	-0.023	0.039	0.553	(0,1,0)			
2. Southern European countries	Greece	40	0.005	0.007	0.435	-0.002	0.006	0.788	(0,1,0)	40	0.005	0.013	0.672	-0.004	0.007	0.521	(0,1,1)		
	Italy	54	0.009	0.009	0.321	0.003	0.008	0.734	(0,1,0)	54	0.002	0.014	0.909	-0.002	0.010	0.874	(1,1,0)		
	Portugal	36	-0.021	0.025	0.407	-0.017	0.011	0.129	(0,1,0)	36	-0.030	0.040	0.449	-0.024	0.017	0.154	(0,1,0)		
	Spain	43	-0.004	0.012	0.726	-0.002	0.004	0.590	(0,1,0)	43	-0.008	0.012	0.525	0.001	0.004	0.757	(0,1,1)		
3. Anglo-Saxon countries and Japan	Australia	53	0.007	0.006	0.193	0.013	0.010	0.213	(2,1,0)	53	0.010	0.006	0.110	0.015	0.012	0.220	(2,1,0)		
	Canada	51	0.001	0.005	0.884	-0.001	0.006	0.805	(0,1,0)	51	0.001	0.007	0.852	-0.001	0.008	0.942	(0,1,1)		
	Ireland	51	-0.005	0.005	0.301	-0.004	0.006	0.575	(0,1,0)	51	0.006	0.015	0.687	-0.003	0.007	0.700	(2,1,0)		
	Japan	55	-0.005	0.006	0.368	-0.017	0.014	0.231	(0,1,0)	55	-0.002	0.011	0.825	0.003	0.022	0.905	(0,1,0)		
	New Zealand	42	-0.010	0.010	0.350	-0.012	0.007	0.076	(1,1,0)	42	-0.016	0.015	0.285	-0.014	0.010	0.182	(0,1,1)		
	United Kingdom	53	0.004	0.007	0.559	-0.001	0.006	0.879	(2,1,0)	53	0.009	0.010	0.331	0.002	0.008	0.766	(1,1,0)		
	United States of America	55	-0.015	0.006	0.007	-0.012	0.004	0.001	(0,1,0)	55	-0.006	0.005	0.239	-0.005	0.003	0.143	(0,1,1)		
4. Bismarckian countries	Austria	48	-0.013	0.012	0.276	0.004	0.022	0.854	(0,1,0)	48	-0.019	0.012	0.099	-0.001	0.024	0.984	(0,1,0)		
	Belgium	54	0.010	0.009	0.267	0.005	0.006	0.402	(0,1,0)	54	0.015	0.013	0.250	0.013	0.012	0.273	(1,1,0)		
	France	54	0.000	0.012	0.973	0.004	0.013	0.748	(0,1,0)	54	0.012	0.015	0.424	0.021	0.015	0.154	(0,1,0)		
	Germany	55	-0.015	0.004	<0.001	-0.005	0.005	0.285	(0,1,0)	55	-0.011	0.007	0.099	0.000	0.007	0.982	(0,1,1)		
	Netherlands	55	-0.003	0.006	0.563	0.000	0.007	0.944	(2,1,0)	55	-0.008	0.007	0.270	0.002	0.010	0.869	(2,1,0)		
	Switzerland	53	-0.007	0.004	0.062	-0.006	0.012	0.640	(1,1,0)	53	-0.011	0.006	0.072	-0.011	0.026	0.676	(0,1,1)		
5. Scandinavian countries	Denmark	55	-0.020	0.011	0.078	0.001	0.010	0.939	(0,1,0)	55	-0.014	0.015	0.363	-0.004	0.011	0.732	(2,1,0)		
	Finland	54	0.003	0.010	0.734	0.000	0.007	0.955	(0,1,0)	54	0.007	0.012	0.585	0.002	0.008	0.829	(0,1,1)		
	Norway	55	-0.001	0.002	0.714	-0.017	0.012	0.161	(0,1,0)	55	-0.002	0.002	0.356	-0.021	0.019	0.259	(0,1,0)		
	Sweden	55	-0.013	0.008	0.092	-0.011	0.008	0.176	(0,1,0)	55	-0.005	0.010	0.621	-0.011	0.008	0.178	(1,1,0)		

*The ARIMA-model is specified as (p,d,q), where p is the order of the autoregressive parameter, d is the order of differencing, and q is the order of the moving-average parameter.