**Social causation versus health selection in the life course – does their relative importance differ by dimension of SES?**

**Supplementary Table 1** Factor loading of all measurement models

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **male** | | |  | **female** | | |
| Latent Variable | Indicators | **SES** | **MAT** | **OCC** |  | **SES** | **MAT** | **OCC** |
| C-SES | Number of books | 0.88 |  |  |  | 0.79 |  |  |
|  | Rooms per capita | 0.41 | 0.44 |  |  | 0.45 | 0.52 |  |
|  | Father’s skill level | 0.68 |  |  |  | 0.65 |  |  |
|  | Number of facilities |  | 0.84 |  |  |  | 0.80 |  |
| C-HEALTH | Self-rated health | 0.64 | 0.64 | 0.64 |  | 0.64 | 0.63 | 0.63 |
|  | Missed school | 0.78 | 0.78 | 0.78 |  | 0.71 | 0.72 | 0.72 |
|  | Hospitalized | 0.83 | 0.83 | 0.83 |  | 0.81 | 0.81 | 0.81 |
| A-SES | Occupational skill level | 0.76 |  |  |  | 0.76 |  |  |
|  | Average wages | 0.53 |  |  |  | 0.53 |  |  |
| A-HEALTH | Percentage of illness | 0.47 | 0.46 | 0.47 |  | 0.53 | 0.49 | 0.53 |
|  | Percentage of poor health | 0.49 | 0.49 | 0.49 |  | 0.42 | 0.43 | 0.42 |
| O-SES | Income | 0.32 |  |  |  | 0.26 |  |  |
|  | Supervisory status | 0.56 |  |  |  | 0.41 |  |  |
| O-HEALTH | Grip strength | 0.67 | 0.72 | 0.71 |  | 0.66 | 0.68 | 0.68 |
|  | Self-rated health | 0.53 | 0.49 | 0.50 |  | 0.61 | 0.59 | 0.58 |

**Supplementary Table 2** Previous studies on the relative importance of social causation and health selection that used several SES indicators

| **First Author/year** | **SES measures** | **Age** | **SEM** | **MM** | | | **Causal direction** | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  |  | **Health Selection** | **Social causation** | **Relative importance** |
| **Case 2005** | Occupation, income, education | 7-42 | no | | no |  | yes | yes | ND |
| **Eaton 2001** | Labor income, HH-income, job percentiles, social benefits, other income | 16-64 | no | | no |  | no | no | none |
| **Elovaino 2011** | Occupation, promotion | 41-74 | no | | no |  | yes | yes | SC |
| **Elovaino 2012** | Occupation, income | 30-45 | yes | | yes |  | yes | yes | HS |
| **Huurre 2005** | Occupation, education | 16-32 | yes | | yes |  | yes | yes | HS |
| **Palloni 2009** | Occupation, education | 7-42 | no | | no |  | yes | yes | SC |
| **Power2002** | Unemployment, financial hardship, redundancies, occupational class | 23-33 | no | | no |  | yes | yes | SC |
| **Stansfeld 2011** | Occupational classes, tenure | 7-42 | no | | no |  | yes | yes | equal |

*Note:*  SEM= simultaneous equation modeling; MM = measurement model; HS = health Selection; SC = Social Causation; Relative Importance favours …; ND = not determined;

**Supplementary Fig. 1** Relative explanatory power of social causation and health selection, for countries from the Western European region

Note: countries=Austria, Germany, Netherlands, France, Switzerland, Belgium; Phase 1=transition from childhood to adult age; Phase 2=transition from adulthood to old age; the confidence intervals show whether an estimate is different from zero (p<0.05, two-tailed), while the p-values are from a direct Wald-test for difference between the standardized coefficient for causation and selection; the total results for SHARE are weighted to account for unequal probability in the sampling process and to represent the different sizes of the population in the countries. Consequently, the results from the whole SHARE sample are not an average of the results of the regions.

**Supplementary Fig. 2** Relative explanatory power of social causation and health selection, for countries from the Northern European region

Note: see Supplementary Fig. 1; countries=Denmark, Sweden

**Supplementary Fig. 3** Sensitivity analysis, excluding people with missing information on wages

Note: see Supplementary Fig. 1; remaining sample size 5,218 men and 3,802 women

**Supplementary Fig. 4** Sensitivity analysis, excluding people mostly working in the household

Note: see Supplementary Fig. 1; remaining sample size 8,551 men and 8,949 women