# Supplementary Table S1. Standardised factor loadings of the health indicators on the somatic health measurement model and descriptive criteria of model fit, at both baseline (Wave 3) and at the final follow-up (wave 8).

Health indicators	Somatic health at Wave 3	Somatic health at Wave 8
Walking speed	0.58***	0.56***
Self-rated health	0.74***	0.75***
Severe long standing illness	0.80***	0.79***
IADL limitations	$0.88^{***}$	0.89***
ADL limitations	0.87***	0.86***
Diagnosed condition	0.48***	0.43***
Mobility limitations	0.92***	0.91***
Criteria of Model Fit		
Comparative Fit Index	0.977	0.978
Tucker Lewis Index	0.984	0.980
Root Mean Square Error of Approximation (RMSEA)	0.059	0.051

*Notes: All indicators were recoded such that high values represent good health.* Values of the Comparative Fit Index and of the Tucker Lewis Index greater than 0.95 indicate good fit; values of the Root Mean Square Error of Approximation (RMSEA) less than 0.06 indicate good fit. \*\*\*: significant at p<0.001



### **Supplementary Figure S1. Categories of employment histories – Men**



### Supplementary Figure S2. Categories of employment histories – Women



#### Supplementary Figure S3. Conditional response probabilities for each childhood variable in each of the four latent classes

Source: ELSA Life History. Indicators included: whether one of the parents or guardians was a heavy drinker or had mental health problems; whether a biological parent was absent from the household; the main parental breadwinner's occupation (non-manual, manual, unclassified); the number of books in the household; the features of the accommodation (i.e. an inside toilet, fixed bath and a running hot water supply). Measures of health in childhood included: respondent's self-reported health in childhood; whether respondents had experienced any illnesses (such as polio, epilepsy or cancer); whether respondents had been confined to bed, stayed in the hospital, or missed school for more than one month.

The final number of latent classes chosen was based on several statistics (Pearson Chi-square, bootstrap likelihood ratio test and the Bayesian information criterion), as well as on substantive criteria and interpretability of the resulting categories. The entropy index was used to assess classification quality, with values approaching 1.0 indicating a favourable classification.

We labelled classes as 'Lower socio-economic circumstances and poor health' (Class 1), 'Lower socio-economic circumstances and good health' (Class 2); 'Higher socio-economic circumstances and good health' (Class 4). Note: we specified 2000 random sets of starting values, 50 optimizations and 50 iterations for the final stage, in order to ensure the replication of the best log likelihood and that solutions are not derived from local maxima. The entropy statistic obtained for such classification, i.e. a summary measure for the quality of classification, was equal to 0.89 indicating high classification accuracy. Also, the classification matrix indicated a high reliability of the classification. In our case, we obtained high class assignment probabilities for all classes (with values ranging from 0.93 for Class 1 to 0.95 for Classes 3 and 4).

## Supplementary Table S2. Multilevel models of three measures of health by gender-specific categories of lifetime employment histories, beta coefficients and odd ratios (and 95% CIs) – results for MEN (N=794)

	Quality of Life					Somatic Health		Depressed (3+ CESD)			
	Model I	Model II	Model III		Model I Model II N		Model III		Model I Model II		Model III
Continuous work	Ref.	Ref.	Ref.		Ref.	Ref.	Ref.		Ref.	Ref.	Ref.
Week attachment	-1.894	-1.622	-1.789		-1.362	-1.074	-1.055		1.58	1.11	1.08
weak attachment	(-3.54; -0.25)	(-3.22; -0.20)	(-3.36; -0.22)		(-3.32; -0.40)	(-2.01; -0.14)	(-1.99; -0.13)		(0.70; 3.56)	(0.49; 2.48)	(0.49; 2.40)
Exit at 60	-0.718	-1.011	-0.781		-0.510	-0.472	-0.477		1.33	1.22	1.19
	(-2.01; 0.56)	(-2.27; -0.24)	(-2.01; 0.44)		(-1.27; 0.25)	(-1.21; 0.27)	(-1.21; 0.26)		(0.68; 2.60)	(0.63; 2.36)	(0.62; 2.29)
Late start Exit at 60	2.127	0.681	0.663		0.921	0.387	0.365		0.61	0.99	0.83
Late Start, Exit at 60	(0.28; 3.97)	(-1.17; 2.53)	(-1.14; 2.47)		(-0.07; 1.92	(-0.71; 1.48)	(-0.73; 1.46)		(0.21; 1.75)	(0.34; 2.87)	(0.28; 2.39)
	-0.208	_0 17/	_0 17/		0.237	_0.205	_0.202		1.00	0.08	0.00
Age	(_0 39· _0 03)	(_0 35: _0 00)	(_0 34: _0 01)		(_0 34· _0 13)	(_0 30 <sup>.</sup> _0 10)	(_0 30· _0 10)		(0.92.1.09)	(0.90 1.07)	(0.91 · 1.07)
	-0 518	-0.618	-0 565		-0 353	_0 320	_0 319		0.02, 1.00)	0.00, 1.07)	0.88
Wave	(-0.87:-0.17)	(-0.97: -0.27)	(-0.91:0.21)		(-0.53: -0.17)	(-0.50: -0.14)	(-0.50; -0.14)		$(0.70 \cdot 1.16)$	(0.85:1.27)	$(0.68 \cdot 1.14)$
	-0.065	-0.041	-0.038		-0.027	-0.026	-0.025		1 05	1 05	1 05
Wave squared	(-0.13: 0.00)	(-0.10:0.02)	(-0.10:0.02)		(-0.06: 0.00)	(-0.06: 0.01)	(-0.06: 0.01)		(1.00: 1.10)	(0.99: 1.09)	(1.00: 1.10)
Wave*Labour histories	( 0110, 0100)	( 0110, 0102)	( 0110, 0102)				( 0.00, 0.01)		(1.00, 11.0)		(1100, 1110)
	0.247	0.262	0.289	1	0.204	0.203	0.197		1.03	1.04	1.02
Weak attachment	(-0.11; 0.61)	(-0.10; 0.63)	(-0.08; 0.66)		(0.00; 0.41)	(0.01; 0.40)	(0.00; 0.39)		(0.84; 1.25)	(0.85; 1.27)	(0.84; 1.25)
	0.227	0.256	0.253		0.097	0.072	0.072		0.87	0.89	0.88
Early exit	(-0.01; 0.47)	(-0.03; 0.54)	(-0.03; 0.54)		(-0.07; 0.26)	(-0.09; 0.23)	(-0.09; 0.23)		(0.73; 1.02)	(0.75; 1.05)	(0.74; 1.04)
	0.435	0.442	0.415		-0.016	-0.047	-0.036		0.95	0.96	1.00
Late start	(0.02; 0.85)	(0.03; 0.86)	(0.01; 0.83)		(-0.21; 0.24)	(-0.27; 0.18)	(-0.26; 0.19)		(0.73; 1.25)	(0.73; 1.26)	(0.76; 1.31)
Nover left employment	3 53/	3.07	3 1/12		3 /37	3 2/10	3 010		0.22	0.26	0.28
because of ill health a	(2 18: / 88)	(1 78: / 37)	(1.88: / /0)		(2 68: / 10)	(2 52 3 07)	(2/18:3.04)		(0.22 (0.13: 0.30)	(0.15: 0.46)	(0.16: 0.47)
1 o no periods of ill health in	3 059	2 78	2 901		3 361	3 2/19	3 222		0.13, 0.33)	0.53	0.51
adulthood b	$(157 \cdot 455)$	(1.35:4.22)	(1 51 4 29)		(2 52 4 19)	(2 44: 4 06)	$(2 42 \cdot 4 03)$		(0.25: 0.90)	(0.29: 0.97)	(0.28: 0.92)
Lower socio-economic	1 690	1 64	1 748		0.372	0 383	0 421		0.87	0.96	0.93
circumstances good health °	(-0.48:3.86)	$(-0.44 \cdot 3.73)$	(-0.28·3.78)		$(-0.84 \cdot 1.59)$	(-0.78·1.55)	(-0 75· 1 59)		$(0.34 \cdot 2.24)$	$(0.38 \cdot 2.40)$	(0.38: 2.26)
Higher socio-economic	1 244	0.84	0 734		0.349	0 163	0 198		0.77	1.37	1 20
circumstances, good health °	(-1.18: 3.67)	(-1.19: 2.87)	(-1.55: 3.02)		(-0.83: 1.53)	(-0.97: 1.31)	(-0.94: 1.34)		(0.31: 1.92)	(0.49: 3.87)	(0.43: 3.29)
Higher socio-economic	1.239	0.650	0.987	t	0.096	-0.162	-0.124		1.02	0.99	0.90
circumstances, poor health <sup>c</sup>	(-0.86; 3.34)	(-1.69; 2.99)	(-0.98; 2.96)		(-1.26; 1.46)	(-1.47; 1.16)	(-1.45; 1.20)		(0.35; 2.95)	(0.41; 2.42)	(0.38; 2.14)

Intermediate d		0.467	0.603	Τ		0.495	0.562		0.66	0.68
		(-0.82; 1.75)	(-0.65; 1.86)			(-0.23; 1.22)	(-0.16; 1.29)		(0.37; 1.18)	(0.38; 1.21)
Managerial and professional d		2.072	2.041			0.781	0.804		0.66	0.79
		(0.89; 3.25)	(0.88; 3.20)			(0.11; 1.45)	(0.13; 1.47)		(0.38; 1.15)	(0.46; 1.36)
Own with mortgage <sup>e</sup>		0.515	0.601			0.561	0.626		0.47	0.56
		(-1.09; 2.12)	(-0.97; 2.17)	$\bot$		(-0.29; 1.42)	(-0.23; 1.48)		(0.20; 1.10)	(0.24; 1.31)
Own outright <sup>e</sup>		1.466	1.683			0.719	0.804		0.41	0.51
		(0.20; 2.73)	(0.44; 2.93)			(0.03; 1.40)	(0.11; 1.50)		(0.23; 0.72)	(0.29; 0.90)
Income $(f10,000)$		0.270	0.279			0.134	0.134		0.83	0.84
		(0.04; 0.50)	(0.05; 0.50)	$\perp$		(0.01; 0.25)	(0.01; 0.25)		(0.69; 1.00)	(0.70; 1.00)
Wealth (£10,000)		0.002	0.002			0.003	0.003		1.00	1.00
(210,000)		(-0.00; 0.01)	(-0.00; 0.01)			(0.00; 0.01)	(0.00; 0.01)		(0.99; 1.00)	(0.99; 1.00)
Not a smoker <sup>f</sup>		0.264	0.263			0.041	0.040		0.54	0.57
		(-0.80; 1.32)	(-0.78; 1.31).			(-0.52; 0.60)	(-0.52; 0.61)		(0.31; 0.92)	(0.33; 0.98)
Vigorous activity 9		1.126	1.130			1.064	1.040		0.65	0.64
		(0.64; 1.61)	(0.65; 1.61)			(0.81; 1.31)	(0.79; 1.29)		(0.45; 0.94)	(0.44; 0.92)
la e nerta erebia b			-0.415				-0.464			0.64
In a partnersnip "			(-1.10; 0.27)				(-0.84; -0.09)			(0.44; 0.92)
Never diversed/widewed i			1.777				1.598			0.43
Never divorced/widowed '			(-0.48; 4.03)				(0.29; 2.90)			(0.17; 1.08)
Ne shildren l			0.573				0.259			1.62
			(-0.98; 2.13)				(-0.64; 1.16)			(0.78; 3.34)
			-0.798				0.091			1.15
T Child '			(-2.28; 0.69)				(-0.77; 0.95)			(0.58; 2.26)
2 shildron			0.771				0.182			0.85
			(-0.37; 1.92)				(-0.48; 0.84)			(0.49; 1.45)
Class relationships			0.114				-0.000			0.92
Close relationships			(0.07; 0.15)				(-0.02; 0.02)			(0.89; 0.96)
Contacto with family			0.028				-0.031			0.97
			(-0.07; 0.13)				(-0.09; 0.03)			(0.91; 1.04)
Contacts with friends			0.490				0.049			1.00
			(0.30; 0.68)				(-0.05; 0.15)			(0.88; 1.13)
Positivo support by family			0.022				0.005			0.97
			(-0.02; 0.06)				(-0.02; 0.03)			(0.95; 1.00)
Positivo support by friends			0.054				0.018			0.98
			(-0.02; 0.13)				(-0.02; 0.06)			(0.93; 1.03)
	50,790	46,414	40.311	F	11,274	7,739	5.83	F		
Constant	(37.8; 63.8)	(33.8; 58.9)	(27.9; 52.7)		(4.01; 18.6)	(0.68; 14.8)	(-1.39; 13.04)			

Sources: ELSA Waves 3-8 and ELSA Life History. Reference categories: a) Has left employment because of ill health; b) 2 or more periods of ill health in adulthood; c) In lower SEC and poor health in childhood; d) Routine and Manual social class; e) Non-owners; f) Smoker; g) No vigorous physical exercise; h) Not in a partnership; i) Has experience marital disruption (divorce of widowhood); l) 3 or more children. Own calculations.

# Supplementary Table S3. Multilevel models of three measures of health by gender-specific categories of lifetime employment histories, beta coefficients and odd ratios (and 95% CIs) – results for WOMEN (N=1,140)

		Quality of Life		Somatic Health				Depressed (3+ CESD)			
	Model I	Model II	Model III	Model I	Model II	odel II Model III		Model I	Model II	Model III	
Continuous work	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.		Ref.	Ref.	Ref.	
Week ettechment	-0.802	-0.484	-0.621	-0.955	-0.649	-0.710		1.26	1.08	1.22	
weak attachment	(-2.09; 0.48)	(-1.75; 0.77)	(-1.89; 0.65)	(-1.71; -0.20)	(-1.29; -0.01)	(-1.45; 0.03)		(0.77; 2.05)	(0.67; 1.75)	(0.75; 1.98)	
l ong brook	0.696	0.726	0.689	0.522	0.604	0.583		0.62	0.67	0.77	
Long break	(-0.88; 2.27)	(-0.81; 2.26)	(-0.85; 2.27)	(-0.39; 1.44)	(-0.28; 1.49)	(-0.32; 1.48)		(0.33; 1.17)	(0.36; 1.24)	(0.41; 1.43)	
Madium brook	1.400	1.289	1.329	0.974	0.931	0.896		0.68	0.75	0.81	
Medium break	(0.07; 2.73)	(0.01; 2.57)	(0.01; 2.64)	(0.19; 1.75)	(0.18; 1.68)	(0.12; 1.67)		(0.40; 1.16)	(0.45; 1.26)	(0.48; 1.38)	
Showt hwoold	0.658	0.712	0.341	0.687	0.774	0.586		0.54	0.52	0.66	
Short break	(-0.87; 2.19)	(-0.77; 2.20)	(-1.15; 1.84)	(-0.20; 1.76)	(-0.08; 1.63)	(-0.28; 1.46)		(0.28; 0.99)	(0.28; 0.96)	(0.35; 1.22)	
-	-0.150	-0.156	-0.132	-0.143	-0.139	-0.131		1.04	1.04	1.02	
Age	(-0.29; -0.01)	(-0.29; -0.01)	(-0.26; -0.00)	(-0.23; -0.06)	(-0.22; -0.06)	(-0.21; -0.05)		(0.99; 1.09)	(0.99; 1.09)	(0.97; 1.07)	
147	-0.277	-0.337	-0.245	-0.094	-0.059	-0.042		1.11	1.12	1.08	
wave	(-0.55; -0.01)	(-0.62; 0.05)	(-0.53; 0.03)	(-0.25; 0.06)	(-0.21; 0.09)	(-0.20; 0.11)		(0.93; 1.32)	(0.93; 1.33)	(0.91; 1.29)	
	-0.018	-0.006	-0.016	-0.025	-0.027	-0.032		0.98	0.99	0.99	
wave squared	(-0.06; 0.03)	(-0.05; 0.04)	(-0.06; 0.03)	(-0.05; 0.00)	(-0.05; -0.00)	(-0.06; -0.01)		(0.95; 1.02)	(0.95; 1.02)	(0.96; 1.02)	
Wave*Labour histories											
	0.067	0.116	0.123	0.057	0.032	0.038		0.93	0.94	0.93	
VVeak attachment	(-0.18; 0.31)	(-0.14; 0.37)	(-0.13; 0.38)	(-0.09; 0.20)	(-0.10; 0.17)	(-0.10; 0.18)		(0.82; 1.05)	(0.82; 1.06)	(0.82; 1.06)	
Leve here b	-0.028	-0.046	-0.048	-0.082	-0.093	-0.088		0.98	0.98	0.97	
Long break	(-0.34; 0.28)	(-0.35; 0.26)	(-0.35; 0.26)	(-0.26; 0.10)	(-0.26; 0.08)	(-0.26; 0.08)		(0.83; 1.15)	(0.83; 1.15)	(0.83; 1.14)	
Madiumaharaak	-0.036	-0.033	-0.047	-0.090	-0.112	-0.112		0.97	0.92	0.92	
Medium break	(-0.30; 0.23)	(-0.30; 0.23)	(-0.31; 0.21)	(-0.24; 0.06)	(-0.26; 0.03)	(-0.26; 0.04)		(0.82; 1.14)	(0.80; 1.06)	(0.80; 1.06)	
Chart brook	0.068	0.096	0.084	-0.014	-0.007	-0.004		0.93	0.96	0.96	
Short break	(-0.24; 0.37)	(-0.20; 0.40)	(-0.22; 0.38)	(-0.18; 0.15)	(-0.17; 0.16)	(-0.17; 0.16)		(0.81; 1.07)	(0.82; 1.13)	(0.82; 1.13)	
Never left employment	3.127	2.765	2.628	3.327	3.169	3.146		0.40	0.46	0.46	
because of ill health <sup>a</sup>	(2.03: 4.23)	(1.70: 3.82)	(1.59: 3.66)	(2.70: 3.95)	(2.56: 3.77)	(2.54: 3.74)		(0.27: 0.57)	(0.33: 0.66)	(0.32: 0.65)	
1 o no periods of ill health in	3.317	3.118	3.221	4.221	4.074	4.103		0.31	0.34	0.35	
adulthood <sup>b</sup>	(2.05; 4.57)	(1.90; 4.34)	(2.03; 4.41)	(3.50; 4.93)	(3.38; 4.76)	(3.41; 4.79)		(0.21; 0.47)	(0.23; 0.50)	(0.24; 0.52)	
Lower socio-economic	1.899	1.950	1.983	0.913	0.896	0.958		0.61	0.61	0.64	
circumstances, good health <sup>c</sup>	(-0.08; 3.88)	(0.02; 3.88)	(0.10; 3.87)	(-0.21; 2.05)	(-0.20; 1.98)	(-0.12; 2.04)		(0.30; 1.20)	(0.31; 1.17)	(0.33; 1.21)	
Higher socio-economic	0.585	0.464	0.260	0.633	0.512	0.547		0.91	0.96	0.89	
circumstances, good health <sup>c</sup>	(-1.28; 2.45)	(-1.35; 2.28)	(-1.73; 2.25)	(-0.43; 1.70)	(-0.51; 1.53)	(-0.47; 1.56)		(0.48; 1.72)	(0.52; 1.76)	(0.45; 1.74)	
Higher socio-economic	0.442	0.209	0.490	0.530	0.382	0.395		0.79	0.86	0.98	
circumstances, poor health <sup>c</sup>	(-1.67; 2.55)	(-1.83; 2.54)	(-1.28; 2.26)	(-0.67; 1.73)	(-0.77; 1.53)	(-0.75; 1.54)		(0.38; 1.62)	(0.43; 1.71)	(0.54; 1.79)	
Como aducation d	2.354	1.229	1.202	1.333	0.692	0.666		0.64	0.96	0.90	
Some education "	(1.36; 3.35)	(0.21; 2.24)	(0.21; 2.20)	(0.76; 1.90)	(0.11; 1.27)	(0.09; 1.24)		(0.45; 0.91)	(0.67; 1.35)	(0.64; 1.28)	

Intermediate e		1.199	1.160			0.913	0.885		0.88	0.86
		(0.16; 2.24)	(0.14; 2.17)			(0.32; 1.50)	(0.29; 1.47)		(0.62; 1.26)	(0.60; 1.22)
Managarial and professional		1.819	1.687			1.197	1.168		0.66	0.67
		(0.72; 2.92)	(0.60; 2.77)			(0.57; 1.82)	(0.55; 1.80)		(0.44; 0.97)	(0.45; 0.98)
Own with mortage f		1.822	1.572			1.278	1.144		0.49	0.74
Own with mongage		(0.16; 2.24)	(0.46; 2.68)			(0.65; 1.90)	(0.51; 1.77)		(0.30; 0.80)	(0.50; 1.09)
Own outright f		2.226	1.942			1.366	1.174		0.58	0.58
Own outlight *		(1.28; 3.25)	(0.96; 2.92)			(0.82; 1.91)	(0.62; 1.73)		(0.39; 0.84)	(0.35; 0.95)
lncomo (£10,000)		0.154	0.145			0.033	0.025		0.79	0.81
		(-0.01; 0.32)	(-0.03; 0.32)			(-0.06; 0.12)	(-0.06; 0.11)		(0.70; 0.89)	(0.72; 0.91)
$W_{ealth}$ (£10,000)		0.004	0.004			-0.001	-0.001		0.99	1.00
		(-0.00; 0.01)	(-0.00; 0.01)			(-0.00; 0.00)	(-0.00; 0.00)		(0.99; 1.00)	(0.99; 1.00)
Not a smoker a		0.811	0.656			0.135	0.067		0.64	0.71
		(-0.05; 1.67)	(-0.21; 1.52)			(-0.33; 0.60)	(-0.40; 0.54)		(0.43; 0.93)	(0.49; 1.04)
Vigorous exercise h		0.628	0.639			0.826	0.827		0.68	0.68
		(0.23; 1.02)	(0.25; 1.03)			(0.61; 1.04)	(0.61; 1.04)		(0.54; 0.87)	(0.53; 0.86)
			0.782				0.448			0.48
In a partnersnip '			(0.23; 1.33)				(0.14; 0.75)			(0.37; 0.63)
			0.978				0.381			0.98
Never divorced/widowed '			(-0.23; 2.19)				(-0.32; 1.08)			(0.65; 1.48)
Ne shildren m			2.147				0.617			0.71
No children "			(0.70; 3.59)				(-0.21; 1.45)			(0.42; 1.19)
1 obild m			0.600				0.555			0.62
			(-0.62; 1.82)				(-0.15; 1.26)			(0.40; 0.96)
2 obildrop <sup>m</sup>			1.462				0.809			0.80
			(0.47; 2.45)				(0.24; 1.38)			(0.57; 1.13)
Class relationships			0.074				0.016			0.97
Close relationships			(0.04; 0.11)				(-0.00; 0.03)			(0.95; 0.99)
Contacts with family			0.096				-0.005			0.93
			(0.02; 0.17)				(-0.05; 0.04)			(0.89; 0.97)
Contacts with friends			0.318				0.041			0.91
			(0.17; 0.47)				(-0.04; 0.12)			(0.84; 0.99)
Positive support by family			0.033				-0.003			0.98
			(0.00; 0.06)				(-0.02; 0.01)			(0.95; 0.99)
Depitive support by friends			0.059				-0.008			0.99
			(0.00; 0.12)				(-0.04; 0.02)			(0.97; 1.03)
	44 567	42 237	35 059	⊢	1 446	-0.328	-1 745			
Constant	(34.8; 54.3)	(32.8; 51.6)	(25.6; 44.5)		(-4.09; 6.98)	(-5.66; 5.01)	(-7.15; 3.66)			

Sources: ELSA Waves 3-8 and ELSA Life History. Reference categories: a) Has left employment because of ill health; b) 2 or more periods of ill health in adulthood; c) In lower SEC and poor health in childhood; d) No education; e) Routine and Manual social class; f) Non-owners; g) Smoker; h) No vigorous physical exercise; i) Not in a partnership; l) Has experience marital disruption (divorce of widowhood); m) 3 or more children. Own calculations



### Supplementary Figure S4. Estimated trajectories of three health measures (Quality of Life, Somatic Health, and Depression) for men and women, by their gender-specific categories of lifetime employment histories.

Sources: ELSA Waves 3-8 and ELSA Life History. Note: Curves represent mean trajectories by Wave for QoL and Somatic Health. For Depression, we present the estimated probability of reporting 3 or more CES-D symptoms.