

Web extra figures and tables

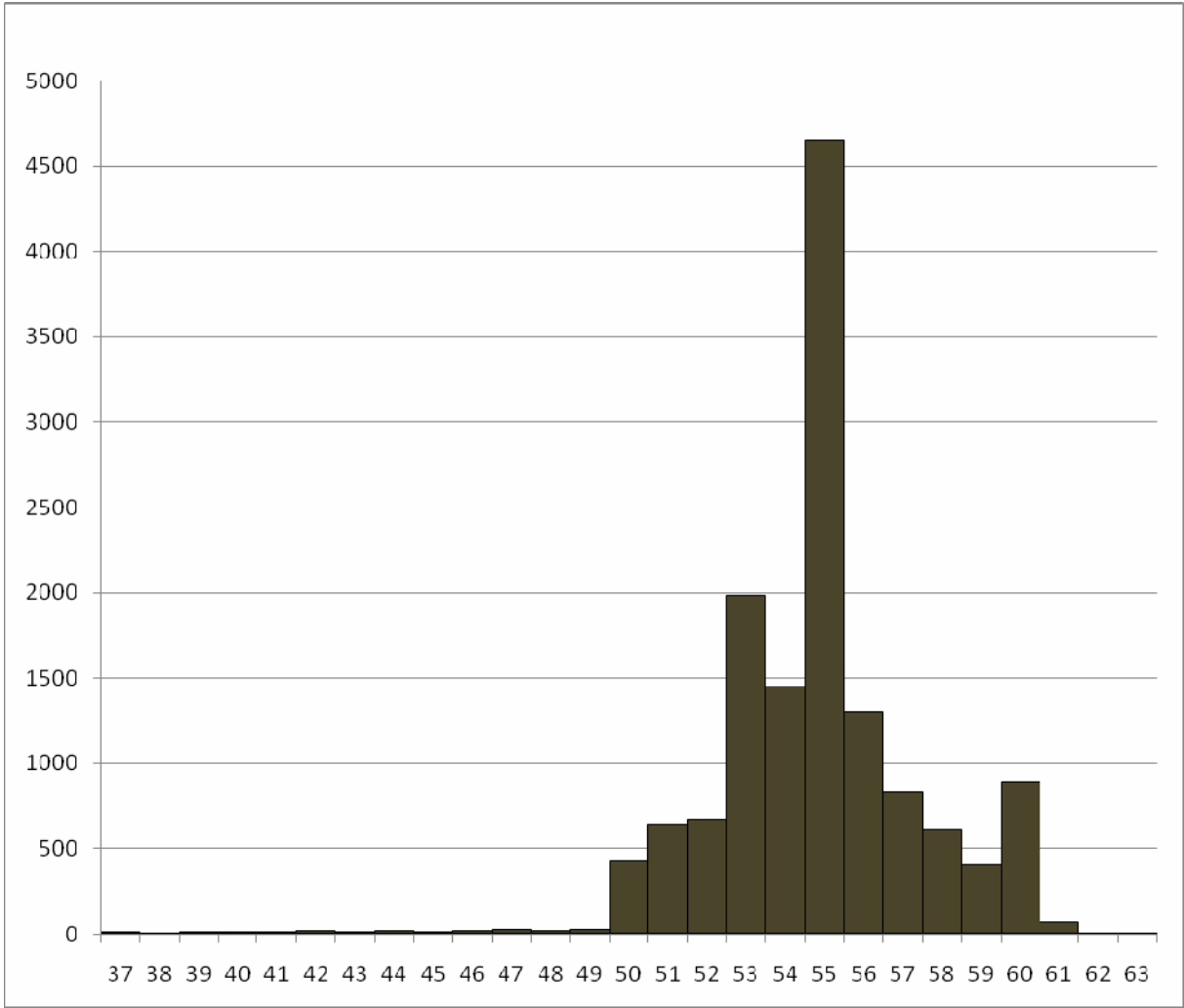


Fig. A – Number of participants in the study who retired from active service in EDF-GDF at different ages (all retired by age 64).

Table A — Sample characteristics, and health status one year before retirement (year –1) in relation to prevalence of mental and physical fatigue before retirement.

Characteristic	Number (%)	Odds ratios and 95% CIs for fatigue in the upper quintile before retirement (year -1) ¹	
		Mental fatigue	Physical fatigue
Sex			
men	11246 (80)	1	1
women	2858 (20)	1.31 (1.18 to 1.44)	1.79 (1.62 to 1.99)
Age at retirement			
<55 years of age	5348 (38)	1.29 (1.17 to 1.41)	1.16 (1.04 to 1.28)
55 years of age	4653 (33)	1	1
>55 years of age	4103 (29)	0.86 (0.77 to 0.95)	0.96 (0.85 to 1.07)
Employment grade			
higher	4781 (34)	1	1
intermediate	7654 (54)	0.97 (0.89 to 1.06)	1.07 (0.96 to 1.18)
lower	1654 (12)	0.99 (0.86 to 1.13)	1.34 (1.16 to 1.56)
Marital status			
not married/cohabitating	1511 (11)	1	1
married or cohabitating	12589 (89)	1.01 (0.89 to 1.15)	0.86 (0.75 to 0.99)
Health status one year before retirement (year –1)			
Respiratory disease ²	1770 (13)	1.31 (1.17 to 1.47)	1.49 (1.32 to 1.68)
Diabetes ²	617 (4)	1.31 (1.09 to 1.57)	1.55 (1.28 to 1.88)
Coronary heart disease or stroke ²	453 (3)	1.95 (1.59 to 2.39)	2.57 (2.09 to 3.17)
Depressive symptoms ³	723 (25)	3.21 (2.90 to 3.56) ⁵	2.94 (2.63 to 3.30) ⁵
Mental fatigue (upper quintile) ⁴	3488 (29)	N/A	13.9 (12.5 to 15.4)
Physical fatigue (upper quintile) ⁴	2564 (21)	13.9 (12.6 to 15.5)	N/A

¹ Estimated based on generalised estimating equation models adjusted for sex, age at retirement, and employment grade one year before retirement (year –1).

² Cumulative prevalence since year –7.

³ Prevalence in the sub-sample who responded to the CES-D questionnaire in the seventh and first year before retirement respectively.

⁴ Prevalence of a fatigue rating of 5-8 on an 8-point scale, roughly corresponding to the upper quintile in the whole dataset.

⁵ Odds ratio comparing those who scored above the cut-off for depression in CES-D any of the seven years before retirement with those who had responded to CES-D at least once during that time without scoring above the cut-off.

Table B – Change over time in all studied outcome variables including sensitivity analyses in a dataset with only complete case data.

Outcome variable	Main effect of time	Odds ratios (95% CI) ¹		
		year -1 vs. year -7	year +1 vs. year -1	year +7 vs. year +1
Respiratory disease				
total sample ²	p<0.0001	3.63 (3.33 to 3.96)	1.18 (1.16 to 1.21)	1.44 (1.40 to 1.88)
only complete-case data ³	p<0.0001	4.04 (3.48 to 4.70)	1.14 (1.10 to 1.18)	1.37 (1.30 to 1.43)
Diabetes				
total sample ²	p<0.0001	3.26 (2.85 to 3.72)	1.21 (1.17 to 1.25)	1.63 (1.55 to 1.72)
only complete-case data ³	p<0.0001	3.19 (2.58 to 3.95)	1.17 (1.10 to 1.25)	1.54 (1.41 to 1.67)
Coronary heart disease or stroke				
total sample ²	p<0.0001	4.93 (3.99 to 6.10)	1.33 (1.27 to 1.39)	1.99 (1.87 to 2.12)
only complete-case data ³	p<0.0001	4.70 (3.38 to 6.53)	1.31 (1.20 to 1.44)	1.90 (1.70 to 2.12)
Mental fatigue				
total sample ²	p<0.0001	1.00 (0.95 to 1.06)	0.19 (0.18 to 0.21)	1.47 (1.33 to 1.62)
only complete-case data ³	p<0.0001	1.23 (1.13 to 1.33)	0.15 (0.13 to 0.18)	1.53 (1.28 to 1.83)
Physical fatigue				
total sample ²	p<0.0001	1.13 (1.06 to 1.20)	0.27 (0.26 to 0.30)	1.46 (1.32 to 1.61)
only complete-case data ³	p<0.0001	1.43 (1.29 to 1.58)	0.22 (0.18 to 0.25)	1.81 (1.50 to 2.18)
Depressive symptoms				
total sample ²	p<0.0001	1.06 (0.91 to 1.25)	0.60 (0.53 to 0.67)	1.05 (0.92 to 1.19)
only complete-case data ³	p<0.0001	not estimated ⁴	0.67 (0.55 to 0.84)	0.79 (0.13 to 1.09)

¹Adjusted for time period only (1989-1999 vs. 2000-2007).

²As reported in the paper, Figure 1.

³Restricted to participants who returned all yearly questionnaires in the 15-year observation window.

⁴No data available for year -7 through year -5 since CES-D was measured for the first time in 1996.

Table C — Synergy index for the additive interaction between work and chronic diseases before retirement on mental and chronic fatigue.

Health condition	Synergy index (95% CI)	
	Mental fatigue	Physical Fatigue
Respiratory disease	1.21 (1.05 to 1.40)	1.34 (1.13 to 1.58)
Diabetes	1.17 (0.92 to 1.47)	1.25 (0.95 to 1.64)
Coronary heart disease or stroke	1.85 (1.44 to 2.38)	2.10 (1.58 to 2.80)
Any chronic disease ¹	1.30 (1.16 to 1.47)	1.43 (1.24 to 1.65)

¹Respiratory disease, diabetes, coronary heart disease, or stroke.

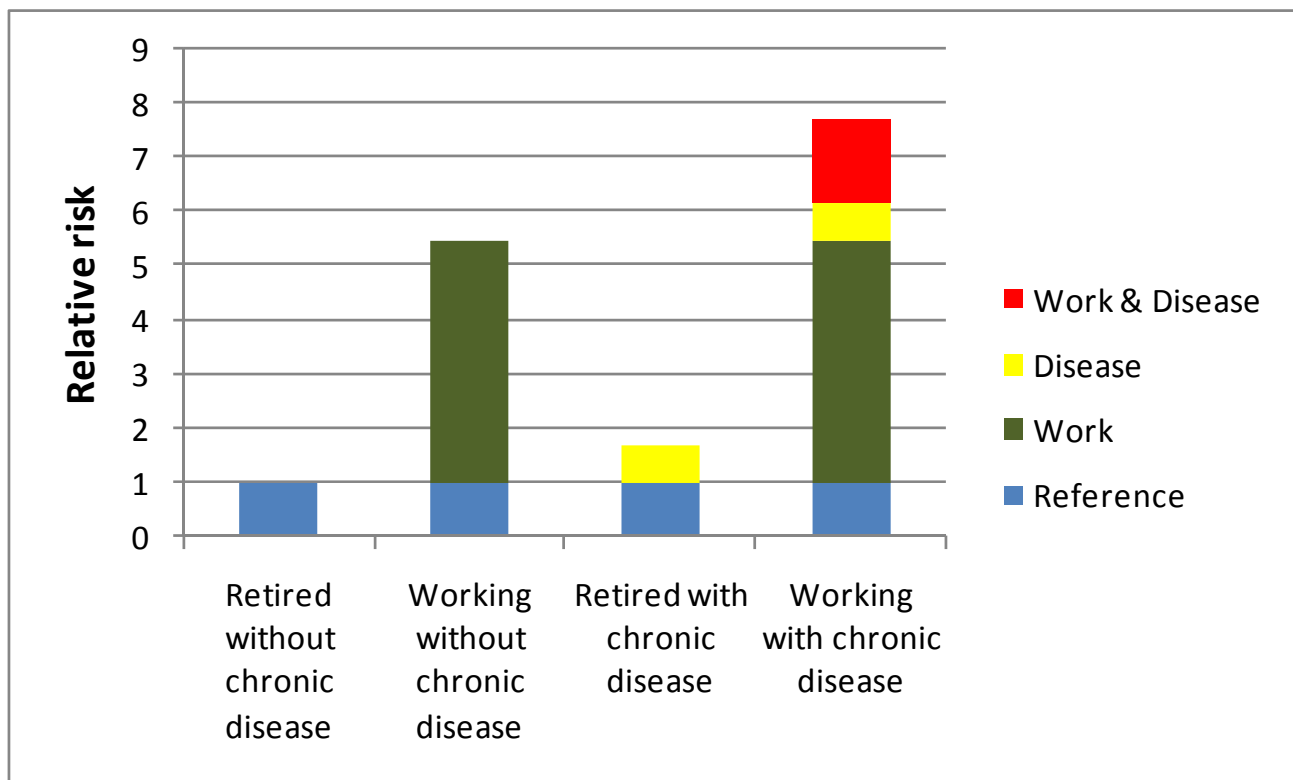


Fig. B — Illustration of the contributions of work (vs. retirement), any chronic physical disease, and the additive interaction (synergy) between them on the relative risk of mental fatigue. The blue base is the common reference category (retired, no chronic conditions) defined as 1. Calculations according to Anderson and colleagues.¹

1. Andersson T, Alfredsson L, Kallberg H, Zdravkovic S, Ahlbom A. Calculating measures of biological interaction. *Eur J Epidemiol* 2005;20:575-9.