

Supplementary tables

Supplementary table 1. Observed sample characteristics

	Czech Republic	Russia	Poland
Total	8773	9301	10709
Age (years, %)			
45.0-49.9	16.9	17.0	18.5
50.0-54.9	19.8	19.5	20.7
55.0-59.9	19.1	21.6	21.0
60.0-64.9	23.0	19.0	19.9
65.0-69.9	21.2	22.9	19.9
Missing (%)	0	0	0
Sex (%)			
Men	46.4	45.6	48.7
Women	53.6	54.4	51.3
Missing (%)	0	0	0
PF-10 score			
Baseline			
Mean	83.5	81.8	80.4
SD	18.8	20.4	21.4
Missing (%)	1.6	0	0.70
Re-examination			
Mean	83.1	80.3	74.6
SD	16.7	21.9	20.8
Missing (%)	41.2	33.9	38.3
PQ2009			
Mean	81.4	70.1	72.1
SD	20.5	26.9	26.4
Missing (%)	40.8	30.7	32.8
PQ2012			
Mean	81.2	67.3	68.2
SD	21.0	27.8	26.4
Missing (%)	47.6	50.4	65.6
Educational attainment (%)			
<Secondary education	49.5	36.9	32.7
Secondary education	36.3	34.2	38.7
University	13.7	28.9	28.5
Missing	0.5	0	0.10
Material conditions			
Mean	6.9	5.7	6.4
SD	2.3	2.1	2.2
%			
1 st tertile	40.6	49.0	34.8
2 nd tertile	29.7	29.2	45.4
3 rd tertile	23.6	21.3	18.2
Missing (%)	6.1	0.5	1.6
Marital status (%)			
Married/cohabiting	75.4	72.4	76.1

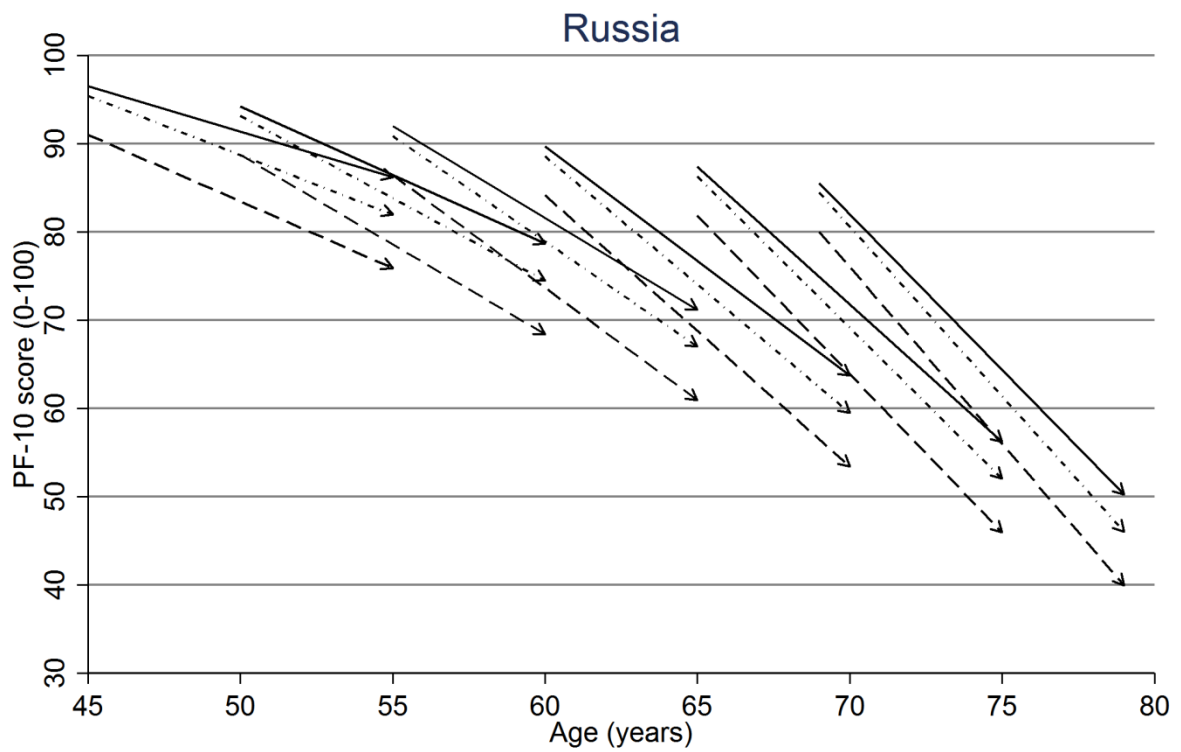
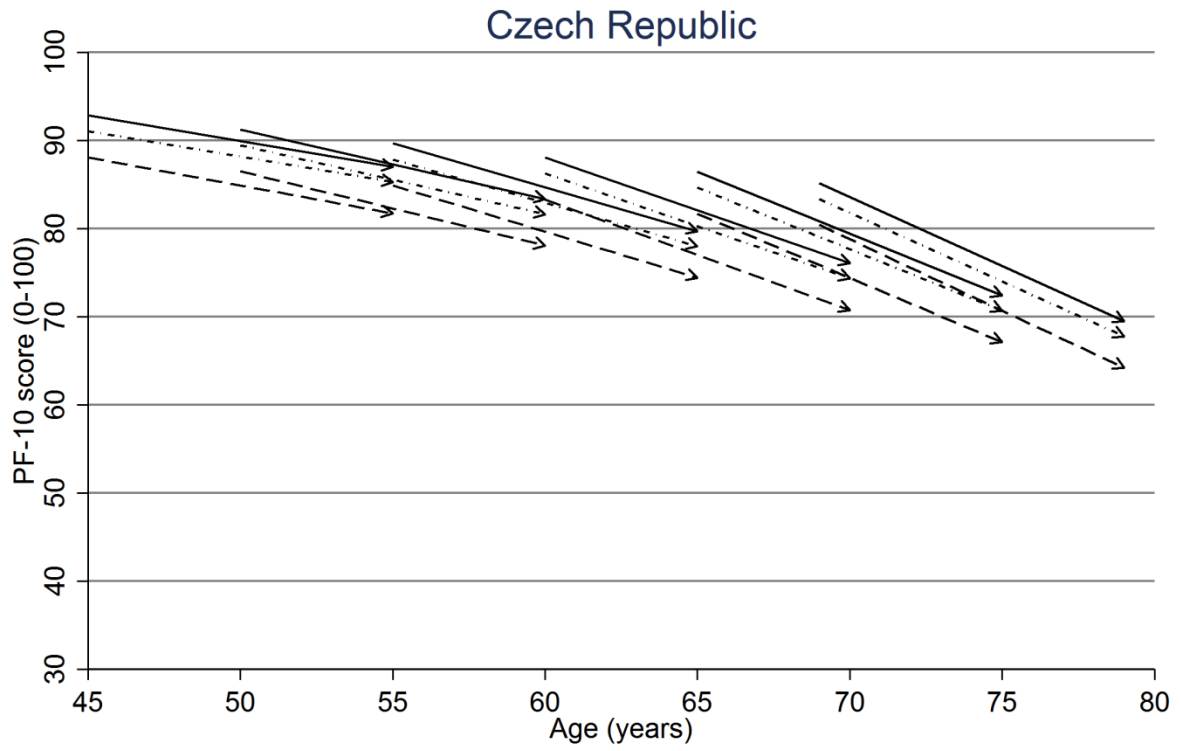
Single/divorced/widowed	24.2	27.6	23.7
Missing	0.4	0	0.2
Spine/joint problems (%)			
No	42.8	34.6	30.5
Yes, never hospitalised	41.9	56.0	60.9
Yes, hospitalised	12.7	9.4	8.4
Missing	2.6	0	0.4
BMI (%)			
<25.0	20.0	27.5	22.0
25.0-29.9	36.7	37.5	37.7
≥30.0	25.3	35.1	26.7
Missing	18.0	<0.1	13.5
Drinking pattern (%)			
Non-drinking	12.4	15.8	34.3
Irregular light-to-moderate	30.6	42.8	31.4
Regular light-to-moderate	19.0	10.3	14.7
Irregular heavy	25.5	21.4	15.7
Regular heavy	9.0	9.7	3.4
Missing	3.5	<0.1	0.6
Smoking (%)			
Never	43.3	58.1	39.5
Former	29.1	13.6	28.2
Current	26.3	28.2	32.0
Missing	1.3	0	0.3

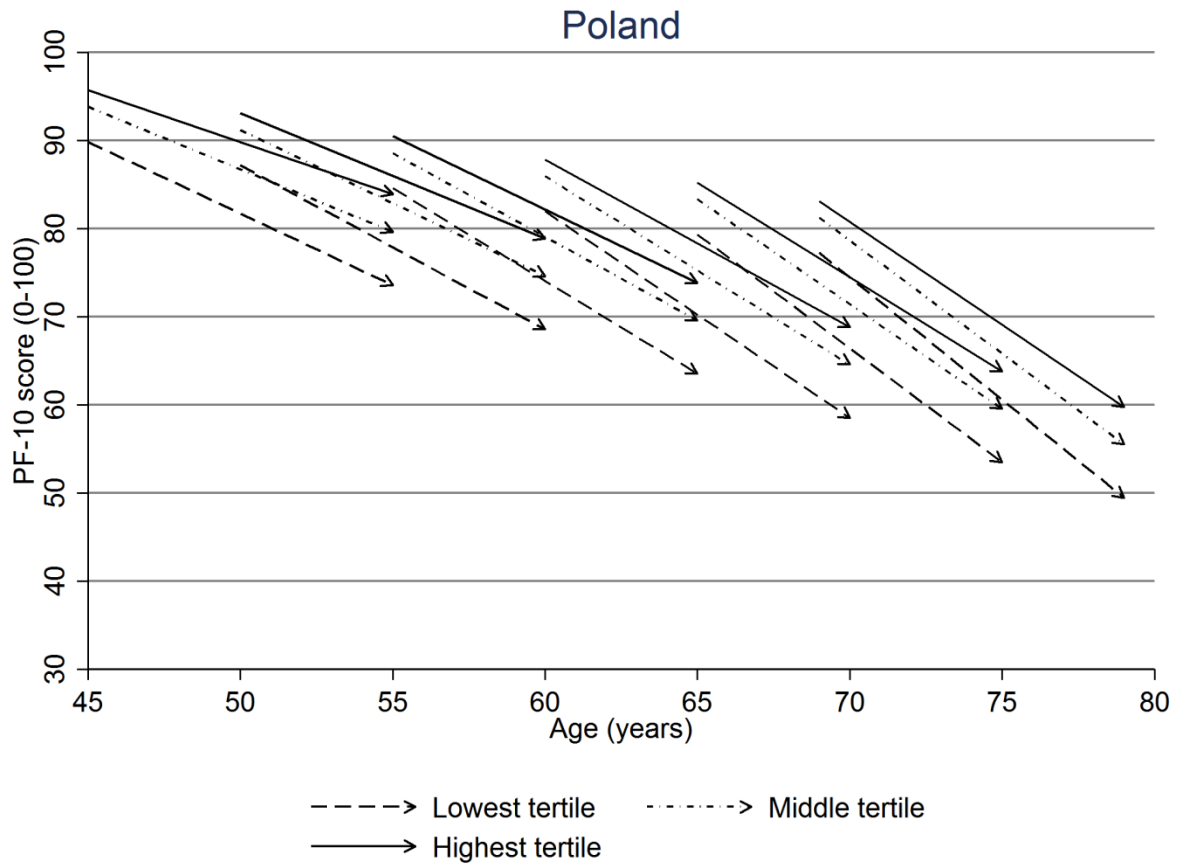
SD: standard deviation

Supplementary table 2. Initial status at baseline and slope of decline (per 1 year) in the PF-10 scores by educational attainment and material condition, stratified by country

	Initial status		Slope	
	Coefficient (95% CI)	p value	Coefficient (95% CI)	p value
Czech Republic				
Mean [§]	83.36 (81.96 to 84.76)	<0.01	-1.22 (-1.50 to -0.94)	<0.01
Variance [§]	189.77 (171.61 to 207.92)	<0.01	0.48 (0 to 0.96)	0.05
Baseline age (year) [†]	-0.33 (-0.38 to -0.28)	<0.01	-0.04 (-0.05 to -0.03)	<0.01
Female	-1.88 (-2.64 to -1.12)	<0.01	0.13 (-0.01 to 0.26)	0.06
Education				
<Secondary education	Reference		Reference	
Secondary education	2.16 (1.21 to 3.10)	<0.01	0.17 (0.03 to 0.31)	0.02
University	2.80 (1.85 to 3.74)	<0.01	0.22 (0.06 to 0.38)	<0.01
Material conditions				
1 st tertile	Reference		Reference	
2 nd tertile	2.52 (1.65 to 3.39)	<0.01	0.03 (-0.12 to 0.17)	0.71
3 rd tertile	3.94 (3.04 to 4.83)	<0.01	-0.01 (-0.17 to 0.15)	0.89
Russia				
Mean [§]	84.88 (83.18 to 86.59)	<0.01	-2.96 (-3.39 to -2.54)	<0.01
Variance [§]	134.31 (111.26 to 157.35)	<0.01	1.16 (0.38 to 1.95)	<0.01
Baseline age (year) [†]	-0.46 (-0.52 to -0.40)	<0.01	-0.10 (-0.12 to -0.09)	<0.01
Female	-6.51 (-7.54 to -5.48)	<0.01	-0.04 (-0.28 to 0.21)	0.78
Education				
<Secondary education	Reference		Reference	
Secondary education	-0.46 (-1.38 to 0.47)	0.33	0.04 (-0.14 to 0.23)	0.66
University	2.09 (1.18 to 3.00)	<0.01	0.44 (0.25 to 0.62)	<0.01
Material conditions				
1 st tertile	Reference		Reference	
2 nd tertile	4.16 (3.27 to 5.05)	<0.01	0.12 (-0.06 to 0.30)	0.20
3 rd tertile	4.86 (3.86 to 5.86)	<0.01	0.36 (0.14 to 0.57)	<0.01
Poland				
Mean [§]	82.48 (80.92 to 84.04)	<0.01	-2.40 (-2.72 to -2.08)	<0.01
Variance [§]	190.41 (165.23 to 215.60)	<0.01	0.98 (0.50 to 1.46)	<0.01
Baseline age (year) [†]	-0.53 (-0.59 to -0.47)	<0.01	-0.05 (-0.06 to -0.04)	<0.01
Female	-4.35 (-5.17 to -3.52)	<0.01	-0.15 (-0.31 to 0.01)	0.07
Education				
<Secondary education	Reference		Reference	
Secondary education	0.91 (-0.03 to 1.85)	0.06	0.32 (0.14 to 0.50)	<0.01
University	2.83 (1.86 to 3.80)	<0.01	0.58 (0.38 to 0.78)	<0.01
Material conditions				
1 st tertile	Reference		Reference	
2 nd tertile	3.53 (2.56 to 4.50)	<0.01	0.11 (-0.06 to 0.28)	0.22
3 rd tertile	4.92 (3.84 to 6.00)	<0.01	0.25 (0.04 to 0.45)	0.02

* p<0.05, ** p<0.01, *** p<0.001; § conditional on the covariates adjusted in the model; † centred on 58 years
Adjusted for baseline age, sex, marital status, history of spine/joint problems, BMI, drinking pattern and smoking status





Supplementary figure 1. Vector graphs of predicted initial status and slope of PF-10 score during 10-year follow-up for every fifth one-year birth cohort by material conditions (model 2)