Table S1: Characteristics of cohort participants with or without missing values compared to randomly selected individuals from the French population.

		Representative sample of the French population		Whole cohort		Cohort without missing value		Comparing representative sample of the French population and whole cohort	Comparing representative sample of the French population and cohort without missing value	Comparing whole cohort and cohort without missing value
		n	%	n	%	n	%	Cohen's h	Cohen's h	Cohen's h
-	**All**	24,242	-	205,203	-	130,197	-	-	-	-
Sex	**Women**	12,745	52.6	110,193	53.7	66,743	51.3	-0.022	0.026	0.048
	Men	11,497	47.4	95,010	46.3	63,454	48.7	0.022	-0.026	-0.048
Age (y)	**18-39**	9657	39.9	66,832	32.6	46,892	36.0	0.152	0.080	-0.072
	40-54	7717	31.8	69,100	33.6	43,443	33.4	-0.038	-0.034	0.004
	55-75	6868	28.4	69,271	33.8	39,862	30.6	-0.117	-0.048	0.069
Education	**University**	6022	24.9	118,646	58.9	82,930	64.2	-0.705**	-0.814***	-0.109
	Secondary school	11,643	48.0	33,246	16.5	20,748	16.1	0.694**	0.705**	0.011
	Primary school	6577	27.1	49,538	24.6	25,431	19.7	0.057	0.175	0.118
Occupation	**Management**	3103	15.5	58,441	32.2	42,099	35.8	-0.398*	-0.474*	-0.076
	Intermediate	5060	25.2	54,114	29.9	35,885	30.6	-0.105	-0.121	-0.015
	Blue collar/clerk	11,900	59.3	68,817	37.9	39,505	33.6	0.432*	0.521**	0.090

The percentages were calculated relatively to the number of cohort participants with or without missing values or of individuals randomly selected from the French population; Each pair of proportions was compared using Cohen's h measure of effect size with the rule of thumb to categorize substantial differences as *small ($0.2 \leq h < 0.5$), **medium ($0.5 \leq h > 0.8$) or ***large ($h \geq 0.8$).

Table S2: Indicators of social position of participants at inclusion.

		n	%
Education (y)	**≥17**	35,557	27.5
	14-16	47,373	36.7
	12-13	20,748	16.1
	≤11	25,431	19.7
Occupation	**Management**	42,099	35.8
	Intermediate	35,885	30.6
	Blue collar/clerk	39,505	33.6
Income	**Very high**	39,952	32.6
	High	40,396	32.9
	Middle	31,339	25.5
	Low	11,019	9.0
Spouse occupation	**Management**	32,048	34.7
	Intermediate	25,037	27.1
	Blue collar/clerk	35,268	38.2
Social vulnerability	**Low**	40,116	30.9
	Average	45,849	35.4
	High	43,729	33.7

The percentages were calculated relatively to the total number of participants in the cohort.

Figure S1: Multiple correspondence analysis showing the association between the different indicators used to characterize social position of participants at inclusion. The plot uses the two first dimensions which explain respectively 18.3 and 11.7% of the total inertia (60.9 and 8.9% with Greenacre adjustment).

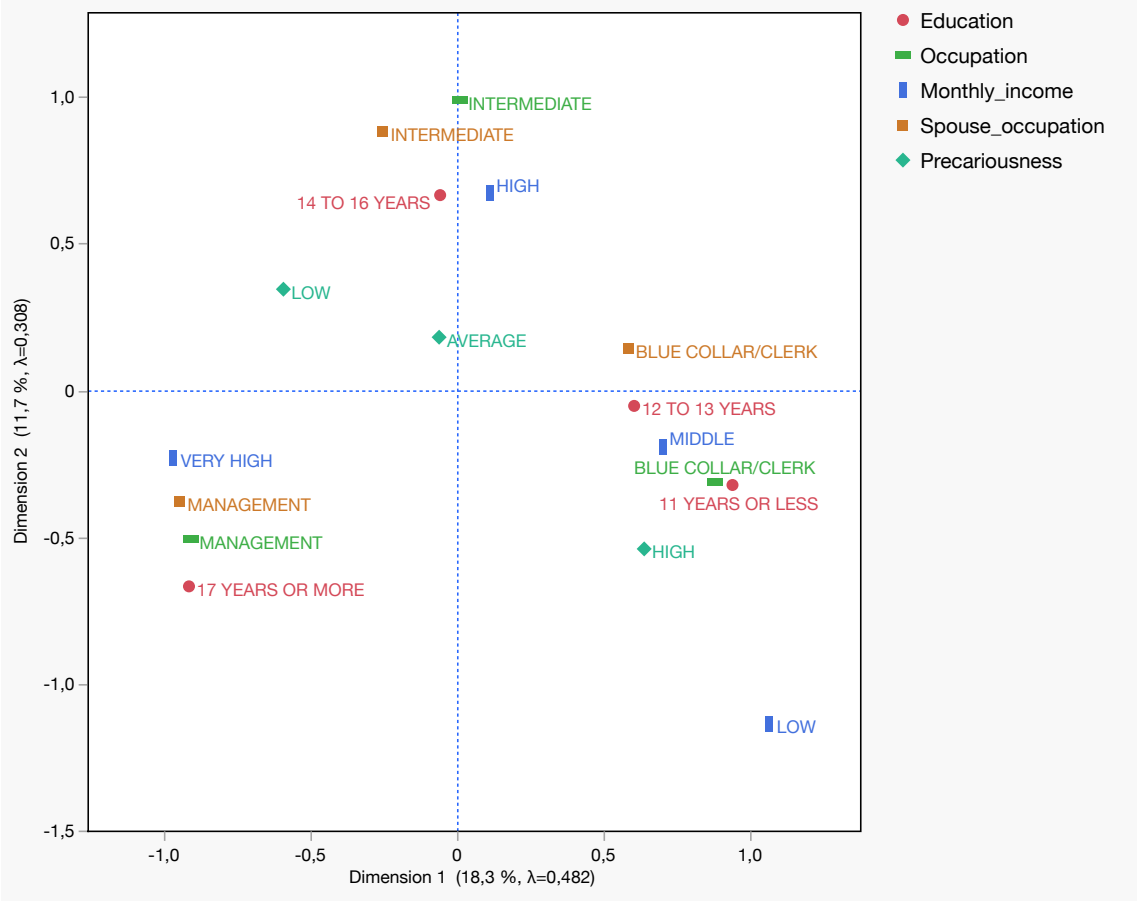

Table S3: Indicators of work environment of participants at inclusion.

		n	%
Commuting time	**<1h**	72,604	76.4
	1h-2h	18,757	19.7
	>2h	3648	3.9
Clocking in and out	**No**	74,281	77.8
	Yes	21,186	22.2
Regular working hours	**No**	53,085	55.4
	Yes	42,755	44.6
Long working hours	**No**	91,576	70.3
	Yes	38,621	29.7
Night work	**No**	118,011	90.6
	Yes	12,186	9.4
Dealing with the public	**No**	47,177	71.5
	Yes	18,801	28.5
Driving on public road	**No**	84,666	88.1
	Yes	11,397	11.9
Repetitive work	**No**	71,866	76.2
	Yes	22,401	23.8
Working with a screen	**No**	22,353	23.4
	Yes	73,266	76.6
Standing work posture	**No**	50,917	52.9
	Yes	45,246	47.1
Handling heavy loads	**No**	59,662	62.3
	Yes	36,112	37.7
Physically demanding work	**No**	93,933	72.2
	Yes	36,264	27.8
Exposure to vibrations	**No**	91,992	96.6
	Yes	3290	3.4
Exposure to noise	**No**	92,000	70.7
	Yes	38,197	29.3
Outdoor work	**No**	87,810	90.2
	Yes	9492	9.8
Working in the cold	**No**	93,155	96.8
	Yes	3075	3.2
Working in the heat	**No**	92,140	95.6
	Yes	4257	4.4
Exposure to chemicals	**No**	86,472	66.4
	Yes	43,725	33.6
Effort-reward imbalance	**Low**	30,381	31.8
	Average	36,199	37.9
	High	28,940	30.3

The percentages were calculated relatively to the total number of participants in the cohort.

Figure S2: Multiple correspondence analysis showing the association between the different occupational exposures used to characterize work environment of participants at inclusion. The plot uses the two first dimensions which explain respectively 16.8 and 12.0% of the total inertia (43.5 and 17.8% with Greenacre adjustment).

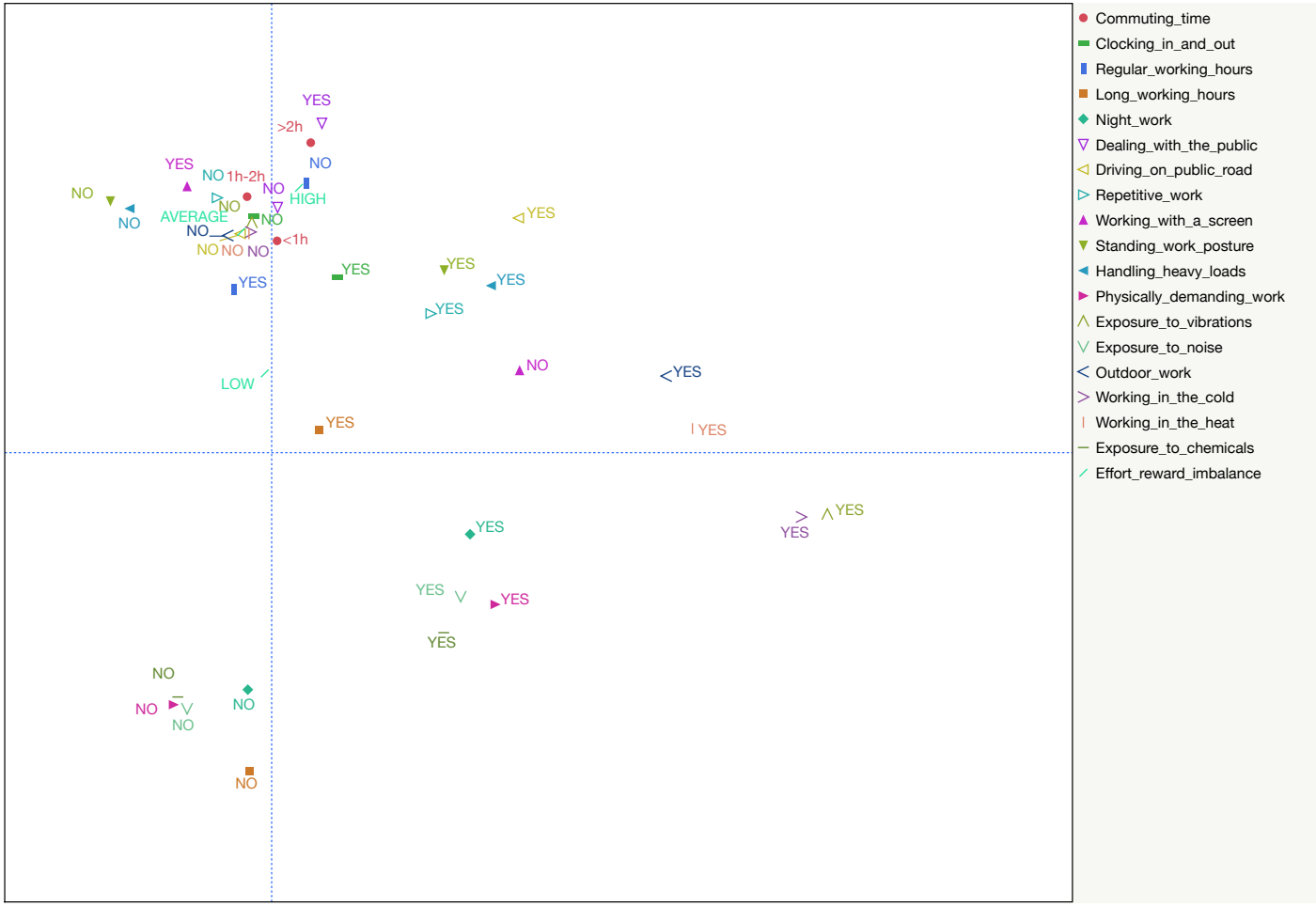

Table S4: Adjusted odds ratios (95% confidence interval, p) for the prevalence of cardiovascular events or cancers in participants at inclusion according to their exposure to common risk factors.

		Cardiovascular event		Cancer	
Sex	**Women**	1.00		1.00	
	Men	2.32 (2.09-2.58)	<0.0001	0.61 (0.58-0.65)	<0.0001
Age (y)	**18-39**	1.00		1.00	
	40-54	3.17 (2.50-4.02)	<0.0001	3.30 (2.94-3.70)	<0.0001
	55-75	6.72 (5.34-8.46)	<0.0001	8.60 (7.70-9.61)	<0.0001
Parental history of cardiovascular event	**No**	1.00		1.00	
	Yes	1.31 (1.20-1.44)	<0.0001	0.97 (0.92-1.03)	0.39
Parental history of cancer	**No**	1.00		1.00	
	Yes	0.94 (0.86-1.03)	0.21	1.28 (1.22-1.35)	<0.0001
Lifetime non-moderate alcohol consumption	**Rarely**	1.00		1.00	
	Sometimes	0.95 (0.80-1.12)	0.51	0.99 (0.91-1.09)	0.95
	Often	0.90 (0.78-1.03)	0.12	0.94 (0.87-1.02)	0.12
Smoking	**Never**	1.00		1.00	
	Former	1.48 (1.34-1.63)	<0.0001	1.10 (1.04-1.17)	0.001
	Current	1.37 (1.19-1.57)	<0.0001	0.85 (0.78-0.92)	0.0002
Leisure-time physical inactivity	**No**	1.00		1.00	
	Yes	1.09 (0.94-1.27)	0.24	1.00 (0.91-1.11)	0.93
Body mass index	**Optimal**	1.00		1.00	
	Overweight	1.05 (0.94-1.16)	0.39	0.95 (0.89-1.01)	0.09
	Obesity	0.99 (0.87-1.12)	0.83	0.93 (0.85-1.01)	0.09
Hypertension	**No**	1.00		1.00	
	Yes	2.17 (1.96-2.39)	<0.0001	1.05 (0.97-1.24)	0.19
Dyslipidemia	**No**	1.00		1.00	
	Yes	5.89 (5.34-6.49)	<0.0001	1.07 (0.98-1.37)	0.11
Diabetes	**No**	1.00		1.00	
	Yes	1.11 (0.94-1.31)	0.20	1.11 (0.94-1.30)	0.22
Sleep disorders	**No**	1.00		1.00	
	Yes	1.15 (1.05-1.26)	0.003	1.16 (1.09-1.23)	<0.0001
Depression	**No**	1.00		1.00	
	Yes	1.29 (1.14-1.46)	<0.0001	1.09 (1.01-1.18)	0.03

Models were adjusted for sex, age, parental history of cardiovascular event, parental history of cancer, social position, work environment, unemployment duration, lifetime non-moderate alcohol consumption, smoking, leisure-time physical inactivity, body mass index, hypertension, dyslipidemia, diabetes, sleep disorders and depression.

Table S5: Adjusted odds ratios (95% confidence interval) for the prevalence of specific non-fatal cancers in participants at inclusion according to unemployment duration.

Body location	Unemployment duration (quarters)	n	%	Models 1	p	Models 2	p	Models 3	p
All	0	5018	4.50	1.00		1.00		1.00	
	1-19	532	4.19	0.95 (0.86-1.04)	0.25	0.95 (0.87-1.05)	0.37	0.95 (0.87-1.05)	0.31
	20-148	380	6.24	0.98 (0.88-1.09)	0.71	0.96 (0.86-1.07)	0.47	0.96 (0.86-1.07)	0.44
Breast	0	1300	1.17	1.00		1.00		1.00	
	1-19	162	1.28	1.02 (0.86-1.21)	0.80	1.04 (0.88-1.23)	0.66	1.03 (0.87-1.22)	0.73
	20-148	128	2.10	1.03 (0.85-1.24)	0.79	1.02 (0.84-1.23)	0.86	1.01 (0.83-1.22)	0.94
Skin	0	1267	1.14	1.00		1.00		1.00	
	1-19	129	1.02	0.92 (0.76-1.10)	0.35	0.95 (0.79-1.15)	0.62	0.96 (0.80-1.15)	0.67
	20-148	69	1.13	0.72 (0.56-0.92)	0.009	0.77 (0.60-0.98)	0.03	0.78 (0.61-1.01)	0.06
Prostate	0	611	0.55	1.00		1.00		1.00	
	1-19	39	0.31	0.72 (0.52-1.00)	0.05	0.75 (0.54-1.04)	0.09	0.76 (0.55-1.06)	0.11
	20-148	34	0.56	0.92 (0.65-1.31)	0.65	0.91 (0.64-1.29)	0.59	0.94 (0.66-1.33)	0.71
Cervical	0	254	0.23	1.00		1.00		1.00	
	1-19	38	0.30	1.19 (0.85-1.68)	0.31	1.15 (0.81-1.61)	0.44	1.11 (0.78-1.56)	0.56
	20-148	33	0.54	1.54 (1.07-2.22)	0.02	1.36 (0.94-1.97)	0.10	1.26 (0.87-1.83)	0.22
Colon	0	259	0.23	1.00		1.00		1.00	
	1-19	33	0.26	1.22 (0.85-1.76)	0.28	1.24 (0.86-1.79)	0.24	1.23 (0.85-1.78)	0.26
	20-148	19	0.31	0.95 (0.60-1.52)	0.84	0.92 (0.57-1.47)	0.71	0.92 (0.57-1.47)	0.72
Thyroid	0	270	0.24	1.00		1.00		1.00	
	1-19	36	0.28	1.12 (0.79-1.59)	0.52	1.10 (0.78-1.56)	0.59	1.11 (0.78-1.57)	0.57
	20-148	19	0.31	0.89 (0.56-1.43)	0.64	0.84 (0.53-1.35)	0.48	0.87 (0.54-1.40)	0.56
Lymphoma	0	263	0.24	1.00		1.00		1.00	
	1-19	23	0.18	0.79 (0.52-1.22)	0.29	0.79 (0.52-1.21)	0.28	0.79 (0.51-1.21)	0.27
	20-148	18	0.30	1.11 (0.68-1.79)	0.67	1.08 (0.67-1.76)	0.75	1.07 (0.66-1.74)	0.78
Lung	0	69	0.06	1.00		1.00		1.00	
	1-19	4	0.03	0.56 (0.20-1.54)	0.26	0.53 (0.19-1.45)	0.22	0.50 (0.18-1.38)	0.18
	20-148	5	0.08	1.08 (0.43-2.68)	0.87	0.92 (0.37-2.30)	0.86	0.84 (0.33-2.11)	0.71

The percentages were calculated relatively to the number of participants for each unemployment duration (0 quarter=111,407; 1-19 quarters=12,702; 20-148 quarters=6088).

Models 1 were adjusted for sex, age and parental history of cancer.

Models 2 were adjusted for sex, age, parental history of cancer, social position and work environment.

Models 3 were adjusted for sex, age, parental history of cancer, work environment, unemployment duration, lifetime non-moderate alcohol consumption, smoking, body mass index and sleep disorders.

Figure S3: Age differences between the occurrence of unemployment episodes, cardiovascular events and cancers during the lifetime of participants. The mean age at which each cardiovascular event or cancer occurred was compared to the mean age at which unemployment episodes happened. In each box plot, the horizontal line represents the median value, the ends and the length of the box represent the 1st and 3rd quartiles and the interquartile range (IR) respectively, the lines from each end of the box extend to the outermost values that fall within 1st quartile -1.5*IR and 3rd quartile + 1.5*IR, values outside this interval are presented as individual points. The differences were assessed with the non-parametric Wilcoxon-Mann-Whitney test. *** p<0.0001.

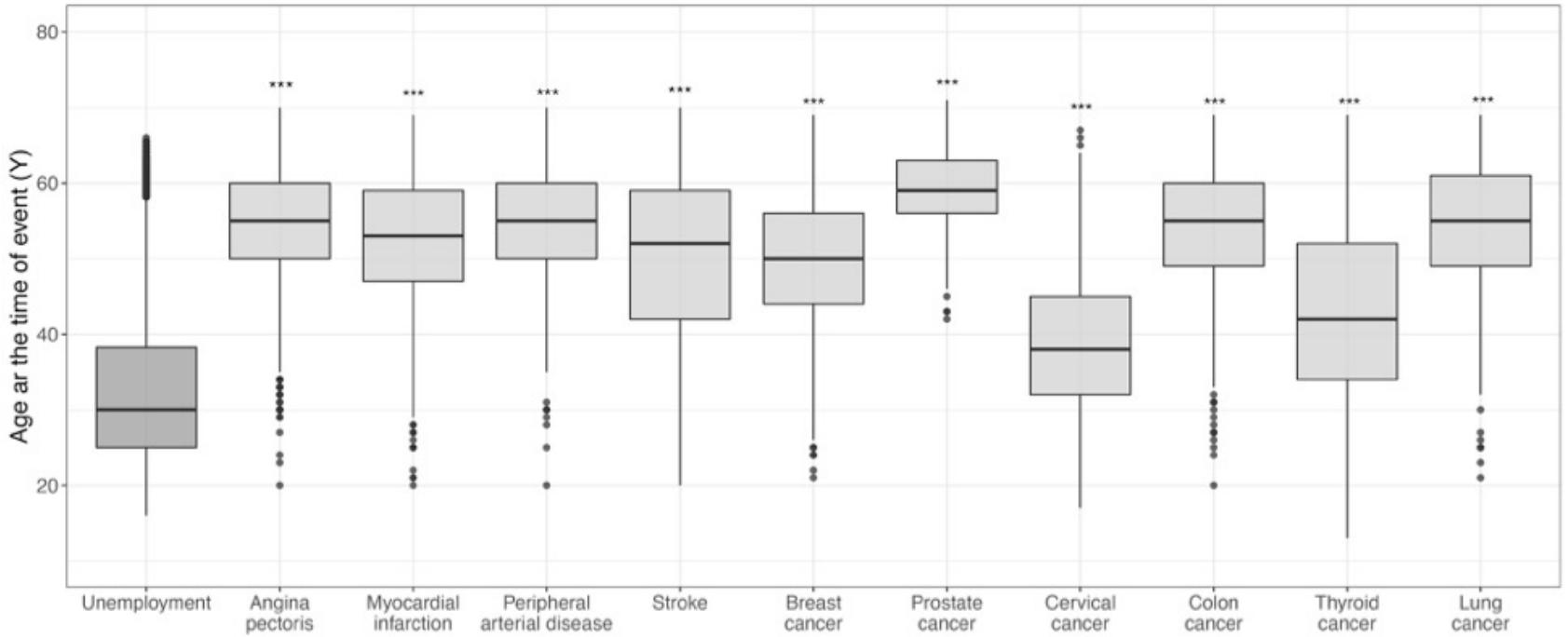

Table S6: Multi-adjusted odds ratios (95% confidence interval) for the prevalence of non-fatal cardiovascular events in men and women at inclusion according to their social position, work environment and unemployment exposure.

		Type of event	Men		Women	
			OR	p	OR	p
Social position	High	All	1.00		1.00	
	Middle		1.14 (0.98-1.32)	0.08	1.05 (0.83-1.34)	0.66
	Low		1.29 (1.10-1.51)	0.002	1.24 (0.95-1.62)	0.11
	High	Stroke	1.00		1.00	
	Middle		1.03 (0.80-1.32)	0.81	0.96 (0.73-1.27)	0.80
	Low		1.20 (0.91-1.57)	0.19	0.97 (0.70-1.34)	0.84
	High	Angina pectoris	1.00		1.00	
	Middle		1.17 (0.91-1.49)	0.22	2.26 (1.17-4.37)	0.01
	Low		1.20 (0.92-1.56)	0.18	3.45 (1.73-6.91)	0.0005
	High	Myocardial infarction	1.00		1.00	
	Middle		1.11 (0.88-1.39)	0.39	0.79 (0.47-1.33)	0.37
	Low		1.27 (1.00-1.61)	0.05	0.81 (0.45-1.47)	0.49
	High	Peripheral arterial disease	1.00		1.00	
	Middle		1.36 (0.84-2.20)	0.22	0.91 (0.44-1.90)	0.80
	Low		2.19 (1.35-3.55)	0.002	1.47 (0.66-3.27)	0.35
Work environment	Good	All	1.00		1.00	
	Average		0.89 (0.74-1.06)	0.20	0.99 (0.77-1.27)	0.94
	Bad		1.24 (1.06-1.46)	0.009	1.25 (0.99-1.59)	0.06
	Good	Stroke	1.00		1.00	
	Average		0.93 (0.69-1.26)	0.65	0.95 (0.71-1.28)	0.76
	Bad		1.25 (0.95-1.65)	0.11	1.21 (0.90-1.61)	0.20
	Good	Angina pectoris	1.00		1.00	
	Average		0.76 (0.56-1.03)	0.08	0.97 (0.56-1.68)	0.90
	Bad		1.11 (0.85-1.44)	0.44	1.04 (0.63-1.74)	0.87
	Good	Myocardial infarction	1.00		1.00	
	Average		0.99 (0.75-1.31)	0.97	0.83 (0.47-1.43)	0.49
	Bad		1.21 (0.94-1.55)	0.14	0.81 (0.48-1.37)	0.43
	Good	Peripheral arterial disease	1.00		1.00	
	Average		0.93 (0.53-1.61)	0.79	0.80 (0.38-1.65)	0.54
	Bad		1.32 (0.82-2.14)	0.26	0.86 (0.42-1.75)	0.68
Unemployment duration (quarters)	0	All	1.00		1.00	
	1-19		1.05 (0.87-1.26)	0.60	0.83 (0.60-1.13)	0.23
	20-148		1.55 (1.27-1.88)	<0.0001	1.16 (0.86-1.56)	0.33
	0	Stroke	1.00		1.00	
	1-19		0.85 (0.60-1.21)	0.38	0.84 (0.57-1.22)	0.36
	20-148		1.18 (0.82-1.72)	0.37	1.06 (0.71-1.57)	0.79
	0	Angina pectoris	1.00		1.00	
	1-19		1.06 (0.78-1.45)	0.70	0.98 (0.54-1.81)	0.96
	20-148		1.77 (1.30-2.40)	0.0003	0.69 (0.33-1.45)	0.33
	0	Myocardial infarction	1.00		1.00	
	1-19		1.16 (0.88-1.51)	0.29	0.88 (0.42-1.84)	0.74
	20-148		1.58 (1.19-2.10)	0.002	1.92 (1.06-3.49)	0.03
	0	Peripheral arterial disease	1.00		1.00	
	1-19		1.15 (0.72-1.86)	0.55	0.88 (0.35-2.24)	0.79
	20-148		1.89 (1.21-2.97)	0.005	1.31 (0.54-3.18)	0.54

Logistic regression models included social position, work environment and unemployment duration and were adjusted for age, parental history of cardiovascular event, lifetime non-moderate alcohol consumption, smoking, leisure-time physical inactivity, body mass index, hypertension, dyslipidemia, diabetes, sleep disorders and depression.

Table S7: Multi-adjusted odds ratios (95% confidence interval) for the prevalence of non-fatal cancers in men and women at inclusion according to their social position and work environment.

		Body location	Men		Women	
			OR	p	OR	p
Social position	High	All	1.00		1.00	
	Middle		0.90 (0.81-1.01)	0.07	1.02 (0.94-1.12)	0.59
	Low		0.81 (0.72-0.92)	0.001	1.10 (0.99-1.23)	0.08
	High	Breast	N/A		1.00	
	Middle				0.94 (0.82-1.07)	0.37
	Low				0.97 (0.83-1.13)	0.71
	High	Skin	1.00		1.00	
	Middle		0.76 (0.63-0.91)	0.004	0.91 (0.76-1.08)	0.28
	Low		0.59 (0.47-0.75)	<0.0001	0.78 (0.63-0.98)	0.03
	High	Prostate	1.00		N/A	
	Middle		0.92 (0.74-1.14)	0.44		
	Low		0.84 (0.67-1.06)	0.14		
	High	Cervical	N/A		1.00	
	Middle				1.37 (1.01-1.86)	0.04
	Low				1.72 (1.21-2.45)	0.002
	High	Colon	1.00		1.00	
	Middle		1.68 (1.08-2.63)	0.02	0.75 (0.47-1.19)	0.22
	Low		1.17 (0.70-1.95)	0.54	1.22 (0.75-1.98)	0.43
	High	Thyroid	1.00		1.00	
	Middle		1.56 (0.84-2.89)	0.16	1.18 (0.84-1.65)	0.33
	Low		1.41 (0.67-3.00)	0.37	1.38 (0.94-2.04)	0.10
	High	Lymphoma	1.00		1.00	
	Middle		1.07 (0.72-1.59)	0.75	1.28 (0.81-2.02)	0.30
	Low		1.04 (0.65-1.68)	0.86	1.25 (0.72-2.17)	0.43
	High	Lung	1.00		1.00	
	Middle		1.14 (0.51-2.57)	0.75	0.99 (0.30-3.31)	0.99
	Low		1.73 (0.74-4.03)	0.20	1.94 (0.56-6.69)	0.29
Work environment	Good	All	1.00		1.00	
	Average		0.88 (0.76-1.01)	0.07	0.99 (0.90-1.09)	0.79
	Bad		1.75 (1.54-1.98)	<0.0001	1.36 (1.24-1.49)	<0.0001
	Good	Breast	N/A		1.00	
	Average				0.94 (0.81-1.09)	0.41
	Bad				1.29 (1.13-1.48)	0.0002
	Good	Skin	1.00		1.00	
	Average		0.99 (0.78-1.27)	0.98	0.88 (0.72-1.06)	0.18
	Bad		1.58 (1.26-1.98)	<0.0001	1.25 (1.03-1.50)	0.02
	Good	Prostate	1.00		N/A	
	Average		0.68 (0.46-1.01)	0.06		
	Bad		3.02 (2.29-3.99)	<0.0001		
	Good	Cervical	N/A		1.00	
	Average				0.95 (0.70-1.27)	0.71
	Bad				1.17 (0.87-1.58)	0.28
	Good	Colon	1.00		1.00	
	Average		0.73 (0.41-1.30)	0.29	1.67 (0.94-2.97)	0.08
	Bad		1.74 (1.08-2.79)	0.02	2.50 (1.48-4.22)	0.0006
	Good	Thyroid	1.00		1.00	
	Average		0.96 (0.50-1.82)	0.89	1.21 (0.86-1.70)	0.27
	Bad		0.87 (0.44-1.71)	0.68	1.28 (0.90-1.81)	0.17
	Good	Lymphoma	1.00		1.00	
	Average		0.69 (0.44-1.09)	0.11	0.82 (0.53-1.29)	0.40
	Bad		0.96 (0.63-1.48)	0.87	1.11 (0.71-1.76)	0.64
	Good	Lung	1.00		1.00	
	Average		1.62 (0.61-4.24)	0.33	0.54 (0.16-1.86)	0.33
	Bad		1.54 (0.60-3.96)	0.37	1.02 (0.38-2.75)	0.97

Logistic regression models included social position, work environment and unemployment duration and were adjusted for age, parental history of cancer, lifetime non-moderate alcohol consumption, smoking, body mass index and sleep disorders. NA: non applicable.