

Supplementary Material

Table S1. Number and percentage of missing values for outcome variables.

	n Valid	n Missing	% Missing
<i>Exposed to noise</i>	118,577	836	0.7
<i>Exposed to cold</i>	117,515	1898	1.6
<i>Exposed to hot</i>	117,447	1,966	1.6
<i>Exposed to dust</i>	116,814	2,599	2.2
<i>Exposed to chemical/fumes</i>	116,289	3,124	2.6
<i>Exposed to smoke</i>	117,177	2,236	1.9
<i>Exposed to asbestos</i>	102,745	16,668	14.0
<i>Exposed to paints/ thinners/glues</i>	116,660	2,753	2.3
<i>Exposed to pesticides</i>	115,737	3,676	3.1
<i>Exposed to diesel exhaust</i>	116,598	2,815	2.4

Table S2. Prevalence ratio of workplace hazards among shift workers compared to other workers (reference). Sensitivity analyses.

Exposure	Job ended before 1980 n = 59,692						Job ended after 1980 n = 59,721					
	% Shift workers	% Other workers	PR	95% CI		P value	% Shift workers	% Other workers	PR	95% CI		P value
				Lower	Upper				Lower	Upper		
<i>Noise</i>	64.0	39.6	1.59	1.55	1.62	0.00E+00	70.3	43.4	1.58	1.56	1.61	0.00E+00
<i>Cold</i>	35.3	27.0	1.25	1.20	1.29	0.00E+00	43.7	29.7	1.39	1.35	1.43	0.00E+00
<i>Hot</i>	56.7	36.2	1.48	1.44	1.52	0.00E+00	64.3	43.4	1.43	1.40	1.46	0.00E+00
<i>Dust</i>	29.8	25.2	1.14	1.09	1.18	3.58E-09	32.2	23.9	1.27	1.23	1.32	0.00E+00
<i>Chemical/fumes</i>	26.2	16.1	1.50	1.43	1.57	0.00E+00	29.5	13.8	1.93	1.85	2.00	0.00E+00
<i>Smoke</i>	48.4	53.2	0.88	0.86	0.91	0.00E+00	45.5	40.3	1.06	1.03	1.08	1.32E-05
<i>Asbestos</i>	13.6	7.1	1.51	1.40	1.63	0.00E+00	13.1	5.9	1.73	1.62	1.86	0.00E+00
<i>Paints/ thinners/ glues</i>	13.2	10.2	1.16	1.08	1.24	5.18E-05	15.2	10.5	1.27	1.20	1.34	5.55E-16
<i>Pesticides</i>	2.0	1.8	0.91	0.75	1.12	0.380	2.8	2.0	1.17	1.01	1.35	0.039
<i>Diesel exhaust</i>	16.5	6.8	1.99	1.87	2.13	0.00E+00	20.1	6.5	2.40	2.28	2.54	0.00E+00
<i>Exposed to ≥2hazards</i>	64.8	49.5	1.26	1.21	1.31	0.00E+00	71.0	50.2	1.37	1.33	1.42	0.00E+00

Analysis were adjusted for gender, ethnicity, education, age, neuroticism and stratified by time. PR: Prevalence ratio; CI: confidence interval

Table S3. Prevalence ratio of workplace hazards after 1980 compared to before 1980 (reference). Sensitivity analyses.

Exposure	Shift workers n = 17,239					Other workers n = 102,174						
	% Before 1980	% After 1980	PR	95% CI		P value	% Before 1980	% After 1980	PR	95% CI		P value
				Lower	Upper				Lower	Upper		
Noise	64.0	70.3	1.05	1.03	1.08	6.07E-05	39.6	43.4	1.13	1.11	1.15	0.00E+00
Cold	35.3	43.7	1.16	1.12	1.22	2.61E-12	27.0	29.7	1.09	1.06	1.11	2.98E-11
Hot	56.7	64.3	1.09	1.05	1.12	7.58E-08	36.2	43.4	1.19	1.16	1.21	0.00E+00
Dust	29.8	32.2	1.06	1.01	1.12	0.013	25.2	23.9	0.93	0.91	0.96	3.28E-07
Chemical/fumes	26.2	29.5	1.12	1.05	1.20	0.001	16.1	13.8	0.77	0.74	0.80	0.00E+00
Smoke	48.4	45.5	0.95	0.92	0.99	0.007	53.2	40.3	0.79	0.78	0.81	0.00E+00
Asbestos	13.6	13.1	1.11	1.01	1.21	0.029	7.1	5.9	0.92	0.87	0.97	0.003
Paints/ thinners/ glues	13.2	15.2	1.07	0.97	1.19	0.149	10.2	10.5	0.95	0.91	1.00	0.046
Pesticides	2.0	2.8	1.57	1.23	2.00	3.35E-04	1.8	2.0	1.00	0.90	1.12	0.993
Diesel exhaust	16.5	20.1	1.17	1.09	1.26	2.73E-05	6.8	6.5	0.87	0.82	0.92	1.43E-06
Exposed to ≥2hazards	64.8	71.0	1.04	1.01	1.07	0.005	49.5	50.2	1.03	1.02	1.05	1.46E-04

Analysis were adjusted for gender, ethnicity, education, age, neuroticism and stratified by shift pattern. PR: Prevalence ratio; CI: confidence interval