

Supplementary Table 1. Survey Items, Response Categories, and Recoding of Study Variables from the Korea National Health and Nutrition Examination Survey

Variables	KNHANES code	Survey item	Original response categories	Recoding for analysis
Employment status	EC1_1	Worked ≥ 1 h for pay or ≥ 18 h as unpaid family worker in the past week; temporary leave counted as working	1 = Yes; 2 = No; 8 = under 15 years; 9 = don't know / no response	1 = employed (original response: Yes); 0 = non-employed (original response: No)
Age	age	Age in years	Continuous	Used as reported
Sex	sex	Sex	1 = male; 2 = female	Used as reported
Education	edu	Highest level of education completed	1 = $\leq$ elementary; 2 = middle school; 3 = high school; 4 = $\geq$ college	(1) < 12 years (1-2) vs. (2) ≥ 12 years (3-4)
Marital status	marri_1	Marital status	1 = ever married; 2 = never married	Used as reported
Head of household	fam_rela	Relationship to household head	1 = self; 2-10 = other	(1) Yes vs (2) no (2-10)
Household size	cfam	Number of household members	1-6 (6 = ≥ 6)	(1) 1-2 vs (2) ≥ 3
Household income	ainc	Average monthly total household income	Continuous	(1) < 3 million vs (2) ≥ 3 million KRW/month
Private insurance	npins	Enrolled in private health insurance	1 = yes; 2 = no	Used as reported
Type of cancer	DC1_dg-DC7_dg, DC11_dg, DC12_dg	Physician diagnosis of each cancer type	0 = no; 1 = yes	(1) Stomach, (2) liver, (3) colon, (4) breast, (5) cervical, (6) lung, (7) thyroid, (8) other
Current cancer status	DC1_pr-DC7_pr, DC11_pr, DC12_pr	Currently has the diagnosed cancer	0 = no; 1 = yes	Used as reported
Time since diagnosis	age - DC*_ag	Age at first diagnosis subtracted from current age	Continuous	Used as reported
Comorbidity	DI1~ DI6, DM1, ~DM4, DM8, DE1, DE2, DJ2, DJ4, DJ8, DF2, DH2, DH3, DH4, DH6, DH7, DK4, DK8, DK9, DL1, DN1, BP17	Physician diagnosis of each chronic condition	0 = no; 1 = yes (per condition)	(1) Yes if diagnosed with at least one of the listed conditions; (2) no if none. Cancer diagnoses were not counted
Inpatient service use	MH1_yr	Any hospital admission in the past year	1 = yes; 2 = no	Used as reported
Outpatient service use	MO1_wk	Any outpatient care in the past 2 weeks	1 = yes; 2 = no	Used as reported
Pain	LQ_2HT	Pain during the past week	1 = none; 2 = mild; 3 = severe; 4 = extreme	Used as reported
Vitality(fatigue)	LQ_3HT	Energy during the past week	1 = always; 2 = often; 3 = sometimes; 4 = never had energy	Used as reported
Depression	LQ_5HT	Depressed mood during the past week	1 = never; 2 = sometimes; 3 = often; 4 = always	Used as reported
Memory	LQ_6HT	Difficulty remembering during the past week	1 = none; 2 = mild; 3 = considerable; 4 = unable to remember	Used as reported
Sleep	LQ_7HT	Difficulty sleeping during the past week	1 = none; 2 = mild; 3 = considerable; 4 = unable to sleep	Used as reported

(Continued on the next page)

Supplementary Table 1. Continued

Variables	KNHANES code	Survey item	Original response categories	Recoding for analysis
Occupational continuity	EC_occp, EC_lgw_2	Current occupation (asked of employed respondents) and occupation held longest during lifetime (asked of all adults regardless of current employment status)	Both coded in the same 10 major groups of the 7th Korean Standard Classification of Occupations; 88 = not applicable (EC_occp: not currently employed / EC_lgw_2: aged < 19, unemployed or economically inactive)	The two codes were compared directly and classified into four categories: (1) retained longest-held occupation (codes identical); (2) current occupation different from longest-held occupation (both reported, codes differ); (3) currently non-employed with a previous longest-held occupation (EC_occp = 88, EC_lgw_2 valid); (4) continuously non-employed (both = 88)
Employment type	EC_stt_1	Type of work performed	1 = wage worker; 2 = self-employed or employer; 3 = unpaid family worker	Used as reported
Weekly working hours	EC_wht_23	Average weekly hours including overtime and night work but excluding meal breaks	Continuous (hours)	Used as reported

All variables are from the eighth Korea National Health and Nutrition Examination Survey (2019 and 2021). Responses coded as “don’t know” or “no response” were treated as missing, and cases with missing values on any study variable were excluded. KRW = Korean won.