

## SUPPLEMENTARY TABLES

**Supplementary Table 1. Association between baseline sleep quality with risk of angina.**

	Categorical			Continuous
	Good Quality N=3703	Intermediate Quality N=3863	Poor quality N=2004	Per one score increase
No. of Cases /Person-Years	66/22596	108/24090	70/11824	244/58510
Model 1	1 (reference)	1.588 (1.168, 2.159)	2.428 (1.724, 3.420)	1.611 (1.378, 1.884)
P value		0.003	<0.001	<0.001
Model 2		1.456 (1.026, 2.066)	2.162 (1.454, 3.216)	1.558 (1.297, 1.871)
P value	1 (reference)	0.035	<0.001	<0.001
Model 3		1.585 (1.025, 2.452)	2.677 (1.497, 4.786)	1.745 (1.319, 2.310)
P value	1 (reference)	0.039	<0.001	<0.001

Model 1: adjusted for age, sex

Model 2: model 1+education, social economic classification, marital status, income

Model 3: model 2+ current smoking, alcohol consumption, BMI, physical activity, diabetes, high blood cholesterol, hypertension, depression, sleep duration

**Supplementary Table 2. Association between baseline sleep quality with risk of myocardial infarction.**

	Categorical			Continuous
	Good Quality N=3703	Intermediate Quality N=3863	Poor quality N=2004	Per one score increase
No. of Cases /Person-Years	76/22596	83/24090	54/11824	213/58510
Model 1	1 (reference)	1.089 (0.797, 1.487)	1.742 (1.221, 2.485)	1.313 (1.107, 1.558)
P value		0.594	0.002	0.002
Model 2		1.173 (0.819, 1.681)	1.726 (1.139, 2.615)	1.318 (1.083, 1.605)
P value	1 (reference)	0.384	0.010	0.006
Model 3		1.279 (0.818, 2.000)	1.493 (0.764, 2.919)	1.325 (0.976, 1.797)
P value	1 (reference)	0.280	0.241	0.071

Model 1: adjusted for age, sex

Model 2: model 1+education, social economic classification, marital status, income

Model 3: model 2+ current smoking, alcohol consumption, BMI, physical activity, diabetes, high blood cholesterol, hypertension, depression, sleep duration

**Supplementary Table 3. Association between sleep quality change and risk of incident CHD.**

		<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
	<b>Cases /Person-Year</b>	<b>HR (95% CI)</b>		
Maintaining good quality	73/13244	1 (reference)	1 (reference)	1 (reference)
Quality improved	63/10262	1.202 (0.857, 1.685)	1.008 (0.682, 1.490)	0.992 (0.606, 1.624)
Maintaining intermediate quality	122/16942	1.298 (0.969, 1.737)	1.176 (0.848, 1.631)	1.288 (0.856, 1.939)
Quality worsened	83/11588	1.340 (0.978, 1.836)	1.189 (0.833, 1.698)	1.051 (0.675, 1.635)
Maintaining Poor quality	70/6474	2.430 (1.742, 3.390)	2.235 (1.530, 3.265)	1.876 (1.055, 3.334)

Model 1: adjusted for age, sex

Model 2: model 1+education, social economic classification, marital status, income

Model 3: model 2+ current smoking, alcohol consumption, BMI, physical activity, diabetes, high blood cholesterol, hypertension, depression, sleep duration

**Supplementary Table 4. Contribution of each individual sleep problem at baseline to CHD risk.**

	<b>Cases/Person-Year</b>	<b>HR (95% CI)</b>	<b>P value</b>
<b>Difficulty falling asleep</b>			
Not during the last month	237/35330	1 (reference)	
Less than once a week	43/7906	1.020 (0.642, 1.620)	0.935
Once or twice a week	47/6606	1.407 (0.886, 2.233)	0.148
Three or more times a week	84/8668	1.843 (1.166, 2.913)	0.009
<b>Wake up several times at night</b>			
Not during the last month	76/14020	1 (reference)	
Less than once a week	39/6702	1.363 (0.789, 2.353)	0.267
Once or twice a week	63/10444	1.180 (0.718, 1.941)	0.514
Three or more times a week	233/27344	1.710 (1.153, 2.538)	0.008
<b>Wake up feeling tired &amp; worn out</b>			
Not during the last month	172/28810	1 (reference)	
Less than once a week	62/9724	1.171 (0.769, 1.784)	0.462
Once or twice a week	68/8962	1.570 (1.022, 2.412)	0.039
Three or more times a week	109/11014	1.921 (1.280, 2.881)	0.002

Adjusted for age, sex, education, social economic classification, marital status, income, current smoking, alcohol consumption, BMI, physical activity, diabetes, high blood cholesterol, hypertension, depression, sleep duration

**Supplementary Table 5. Association between baseline sleep quality with outcome in imputed dataset.**

	Categorical			Continous
	Good Quality	Intermediate Quality	Poor quality	Per one score increase
<b>CHD</b>	1 (reference)	1.385 (1.028, 1.864)	1.945 (1.285, 2.943)	1.467 (1.207, 1.783)
<b>P value</b>		< 0.001	< 0.001	< 0.001
<b>Angina</b>	1 (reference)	1.529 (1.030, 2.270)	2.387 (1.399, 4.071)	1.675 (1.300, 2.159)
<b>P value</b>		0.035	< 0.001	< 0.001
<b>MI</b>	1 (reference)	1.268 (0.840, 1.916)	1.737 (0.970, 3.109)	1.310 (0.996, 1.723)
<b>P value</b>		0.259	0.063	0.054

CHD: coronary heart disease; MI: myocardial infarction

Adjusted for age, sex, education, social economic classification, marital status, income, current smoking, alcohol consumption, BMI, physical activity, diabetes, high blood cholesterol, hypertension, depression, sleep duration

**Supplementary Table 6. Missing data proportion of each covariate.**

Covariate	N (%)
Age	0 (0)
sex	0 (0)
Education level	298 (3.1)
NS-SEC	356 (3.7)
Marital status	1 (0.01)
Total wealth group	1273 (13.3)
Drink alcohol frequency	207 (2.2)
Current smoking	66 (0.8)
Physical activity	13 (0.1)
BMI	1448 (15.1)
Depression	83 (1.2)
Diabetes	4 (0.04)
Hypertension	4 (0.04)
High cholesterol	14 (0.2)
Sleep duration	24 (0.3)

NS-SEC: national statistics social-economic classification; BMI: body mass index