Sleep variable	No. of participants	Case (%)	Model 1	Model 2	Model 3	P value
Snoring						
Prediabetes	1,224	853 (69.7)	1.48 (1.16–1.90)	1.37 (1.07–1.76)	1.36 (1.06–1.75)	0.018
Type 2 diabetes mellitus	355	269 (75.8)	2.20 (1.47-3.30)	1.89 (1.24–2.87)	1.85 (1.22-2.82)	0.005
Below the median sleep duration						
Prediabetes	1,224	529 (43.2)	1.16 (0.93–1.45)	1.13 (0.90–1.40)	1.12 (0.90–1.40)	0.091
Type 2 diabetes mellitus	355	143 (40.3)	0.90 (0.71-1.14)	0.84 (0.66-1.08)	0.86 (0.67-1.09)	0.176
Unwakefulness						
Prediabetes	1,224	633 (51.7)	1.02 (0.72–1.34)	1.00 (0.72–1.37)	1.00 (0.70-1.33)	0.961
Type 2 diabetes mellitus	355	177 (49.9)	1.23 (0.94–1.39)	1.24 (0.95–1.36)	1.23 (0.92–1.32)	0.557
Excessive daytime sleepiness						
Prediabetes	1,224	593 (28.1)	1.07 (0.78–1.46)	1.15 (0.83–1.58)	1.13 (0.82–1.56)	0.198
Type 2 diabetes mellitus	355	172 (48.5)	1.38 (0.98–1.50)	1.32 (0.93–1.44)	1.32 (0.95–1.43)	0.055
Sleep-deprived driving						
Prediabetes	1,224	24 (2.0)	2.06 (0.99-3.82)	1.91 (0.94–3.67)	1.91 (0.93-3.66)	0.090
Type 2 diabetes mellitus	355	5 (1.4)	1.32 (0.45-3.31)	1.17 (0.39–2.97)	1.11 (0.37-2.80)	0.841

Supplementary Table 2. Association of sleep variables with prediabetes and type 2 diabetes mellitus among total participants (n=3,948)

The estimates are in reference to the normal group (participants without prediabetes and type 2 diabetes mellitus) without sleep-related symptoms. Estimates from the sleep-deprived driving are assessed via penalized multivariable logistic regression. The *P* value corresponds to estimates from Model 3.

Model 1 is adjusted for age and sex. Model 2 is adjusted for age, sex, body mass index, hypertension prevalence, education level, household income, and occupation. Model 3 is adjusted for age, sex, body mass index, hypertension prevalence, education level, household income, occupation, cigarette smoking, alcohol consumption, and physical activity.