

**Supplementary Table S1. Baseline characteristic of male after adjustment**

Variable	Never smoker				<20 PY				≥20 PY			
	Unweighted mean	Weighted mean	Unweighted SMD	Weighed SMD	Unweighted mean	Weighted mean	Unweighted SMD	Weighed SMD	Unweighted mean	Weighted mean	Unweighted SMD	Weighed SMD
Age, yr	46.6	50.3	-0.242	-0.002	46.1	50.3	-0.265	-0.003	56.7	51.2	0.387	0.048
Weight, kg	69.8	69.4	0.040	0.004	70.3	69.3	0.085	0.000	68.2	69.3	-0.103	-0.004
Height, cm	170.0	169.5	0.066	-0.005	170.6	169.6	0.160	0.004	168.3	169.4	-0.189	-0.024
Alcohol intake												
Never drinker	0.110	0.054	0.235	0.020	0.028	0.049	-0.247	-0.023	0.045	0.048	-0.064	-0.020
Former drinker	0.124	0.117	0.019	-0.004	0.096	0.117	-0.128	-0.007	0.139	0.120	0.094	0.006
≤1/wk	0.541	0.466	0.233	0.029	0.501	0.459	0.162	0.013	0.353	0.442	-0.342	-0.024
2-3/wk	0.163	0.237	-0.257	-0.005	0.267	0.237	0.110	0.007	0.249	0.241	0.047	0.007
≥4/wk	0.060	0.125	-0.425	-0.048	0.106	0.136	-0.173	-0.008	0.215	0.149	0.305	0.033
Physical activity												
No	0.428	0.452	-0.084	-0.020	0.418	0.455	-0.141	-0.015	0.520	0.466	0.196	0.019
Medium or high	0.290	0.281	0.033	0.007	0.280	0.280	0.005	0.003	0.271	0.278	-0.029	-0.003
Medium and high	0.268	0.253	0.063	0.017	0.288	0.250	0.148	0.015	0.195	0.242	-0.217	-0.020
Education												
Below middle school	0.130	0.176	-0.194	-0.015	0.121	0.176	-0.292	-0.018	0.265	0.189	0.319	0.026
Middle school	0.090	0.118	-0.114	0.003	0.088	0.115	-0.161	-0.004	0.157	0.120	0.188	0.014
High school	0.351	0.348	-0.004	-0.008	0.376	0.353	0.079	0.005	0.331	0.355	-0.077	0.003
Above high school	0.414	0.343	0.207	0.019	0.400	0.341	0.212	0.015	0.230	0.320	-0.416	-0.037
Personal economic status												
1Q	0.223	0.236	-0.057	-0.012	0.227	0.236	-0.054	-0.011	0.265	0.243	0.089	0.011
2Q	0.228	0.242	-0.060	-0.015	0.252	0.250	0.015	0.010	0.255	0.248	0.026	0.000
3Q	0.250	0.248	0.005	0.001	0.250	0.248	0.005	-0.003	0.246	0.251	-0.009	0.005
4Q	0.287	0.262	0.105	0.027	0.260	0.255	0.035	0.005	0.220	0.245	-0.119	-0.017
Occupation												
Employed	0.716	0.744	-0.044	0.026	0.770	0.732	0.149	0.001	0.703	0.738	-0.104	0.007
Unemployed	0.269	0.240	0.047	-0.027	0.214	0.252	-0.152	0.001	0.281	0.247	0.103	-0.007
Comorbidities												
Diabetes	0.103	0.125	-0.102	-0.011	0.091	0.125	-0.205	-0.015	0.176	0.133	0.211	0.027
Hypertension	0.547	0.599	-0.122	0.008	0.572	0.600	-0.073	0.010	0.642	0.600	0.166	0.008
Metabolic syndrome	0.237	0.291	-0.179	-0.017	0.258	0.293	-0.140	-0.010	0.366	0.303	0.239	0.021
COPD	0.069	0.119	-0.316	-0.044	0.088	0.128	-0.254	-0.019	0.209	0.138	0.316	0.028
Stroke	0.018	0.023	-0.079	-0.029	0.019	0.025	-0.087	-0.009	0.038	0.028	0.100	0.015
Malignancy*	0.024	0.029	-0.056	-0.011	0.020	0.027	-0.116	-0.020	0.043	0.031	0.108	0.012

\*Malignancy other than thyroid cancer.

PY: pack-years; SMD: standardized mean difference; COPD: chronic obstructive pulmonary disease.