

Supplementary Table 1. Comparison of demographic characteristics of the included participants and subgroup with missing values

Characteristic	Total	Missing value group (COPD)
No. of subjects (population) ^a	16,443 (37,528,400)	4,726 (13,820,564)
Age (yr)	47.0±0.2	30.4±0.2
Body mass index (kg/m ²)	23.9±0.0	23.6±0.1
Obesity, % ^b	34.6±0.5	31.8±0.8
Handgrip strength (kg)	32.1±0.1	34.0±0.2
Low handgrip strength, % ^c	8.4±0.3	5.0±0.4
Alcohol drinker, % ^d	59.0±0.5	67.9±0.8
Smoking status		
Current smoker, %	20.8±0.5	24.4±0.8
Past smoker, %	22.3±0.4	16.6±0.6
Aerobic exerciser, % ^e	46.2±0.6	56.1±0.9
Resistance exerciser, % ^f	22.8±0.4	26.1±0.8
Household income (quartile)		
1 (lowest), %	14.4±0.5	8.8±0.6
2, %	24.0±0.6	24.0±0.9
3, %	29.0±0.6	32.2±0.9
4 (highest), %	32.6±0.8	35.0±1.1
Education level		
≤Elementary school, %	12.9±0.5	1.2±0.2
Middle school, %	8.2±0.3	2.0±0.3
High school, %	35.4±0.6	37.4±1.0
≥University, %	43.5±0.8	59.4±1.0
Comorbidity	31.6±0.6	
Hypertension, %	19.2±0.5	3.0±0.3
Angina, MI, %	2.0±0.1	0.4±0.1
COPD, %	0.5±0.1	
Diabetes, %	10.9±0.3	2.3±0.3
Arthritis, %	9.5±0.3	1.6±0.2

Continuous variables are presented as weighted mean±standard error (SE), and categorical

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COPD, chronic obstructive pulmonary disease; MI, myocardial infarction.

^aThe number of subjects represents the unweighted sample size; values in parentheses indicate the weighted population. ^bBody mass index≥25 kg/m².

^cUsed Asian Working Group for Sarcopenia 2019 consensus reference, low handgrip strength is defined as <28 kg for male, and <18 kg for female. ^dEver

drunk in his/her lifetime & drunk in the previous year. ^ePerformed more than 150 minutes of moderate intensity physical activity or 75 minutes of high intensity activity per week, or a combination of both. ^fPerformed more than 1 day of resistance activity in a week.