

Table S1. Baseline characteristics of participants based on the status of serum 25(OH)D

Variables	Overall (23,810)	Deficiency (4,260)	Insufficiency (10,213)	Sufficiency (9,337)
Sex, n (%)				
Male	12,596 (52.9)	1,711 (40.2)	5,583 (54.7)	5,302 (56.8)
Female	11,214 (47.1)	2,549 (59.8)	4,630 (45.3)	4,035 (43.2)
Age, y	43.6 (13.3)	35.8 (11.9)	41.3 (12.7)	49.6 (11.9)
Age, n (%)				
18-44	12,683 (53.3)	3,336 (78.3)	6,389 (62.6)	2,958 (31.7)
45-59	8,227 (34.6)	729 (17.1)	2,927 (28.7)	4,571 (49.0)
≥60	2,900 (12.2)	195 (4.6)	897 (8.8)	1,808 (19.4)
Season,n (%)				
Spring	3,879 (16.3)	755 (17.7)	1,846 (18.1)	1,278 (13.7)
Summer	6,131 (25.7)	663 (15.6)	2,593 (25.4)	2,875 (30.8)
Fall	6,139 (25.8)	651 (15.3)	2,357 (23.1)	3,131 (33.5)
Winter	7,661 (32.2)	2,191 (51.4)	3,417 (33.5)	2,053 (22.0)
Smoking, n (%)	4,852 (20.9)	539 (13.2)	1,873 (18.8)	2,440 (26.5)
Drinking, n (%)	6,969 (30.1)	885 (21.7)	3,053 (30.8)	3,031 (33.0)
25(OH)D, ng/mL	18.8 (7.3)	9.8 (1.6)	16.0 (2.3)	26.1 (5.4)
Abdominal obesity, n (%)	9,307 (40.3)	1,193 (29.6)	3,972 (40.1)	4,142 (45.1)
Hypertriglyceridemia, n (%)	6,260 (26.7)	795 (19.4)	2,780 (27.7)	2,685 (28.9)
Low HDL-cholesterol, n (%)	4,550 (21.9)	792 (20.4)	2,060 (22.8)	1,698 (21.7)
Hypertension, n (%)	8,055 (34.4)	923 (22.4)	3,119 (31.1)	4,013 (43.4)

Hyperglycemia, n (%)	8,829 (37.7)	1,129 (27.4)	3,573 (35.6)	4,127 (44.5)
Metabolic syndrome, n (%)	5,500 (26.9)	692 (18.2)	2,353 (26.5)	2,455 (31.6)
