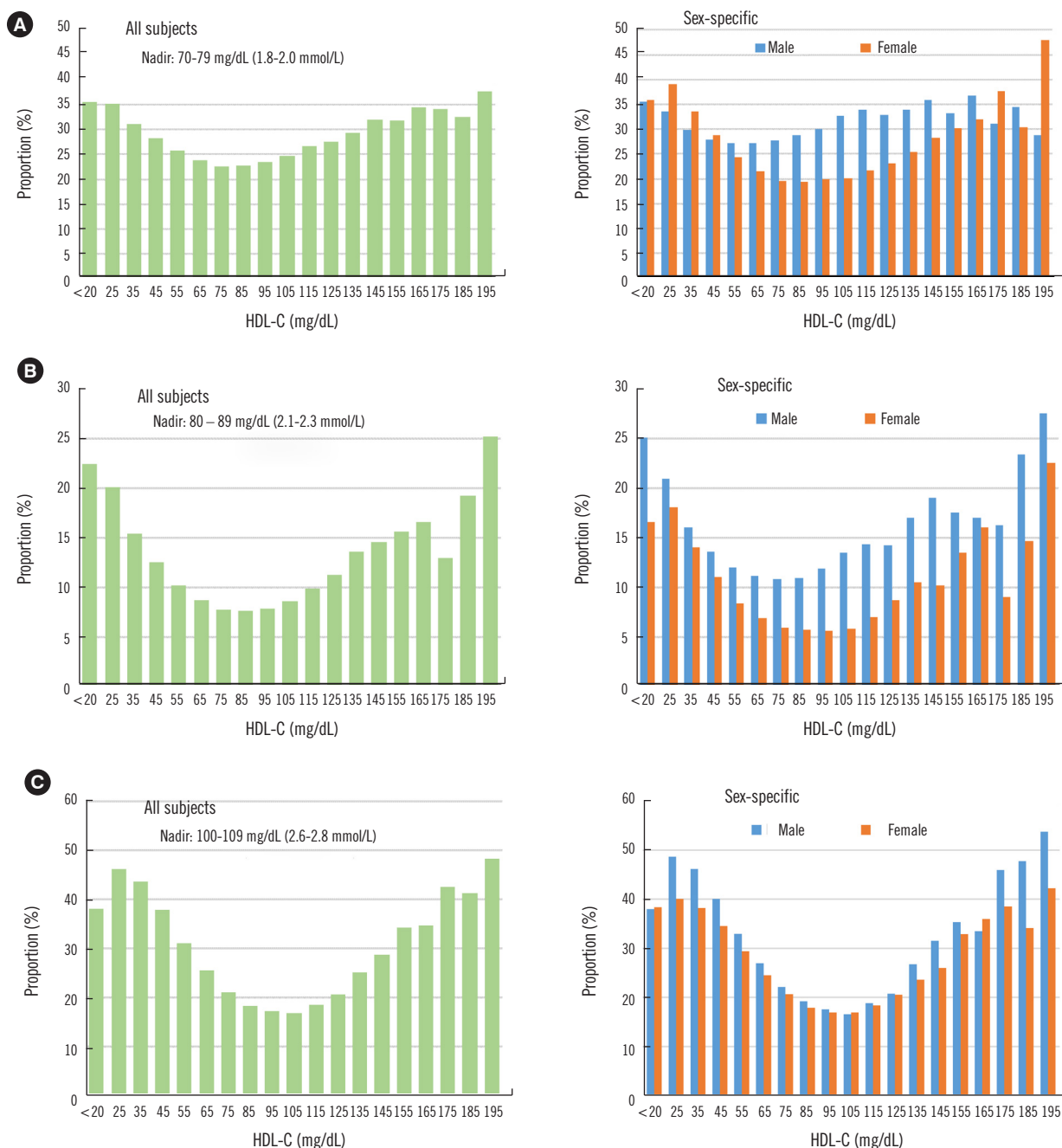


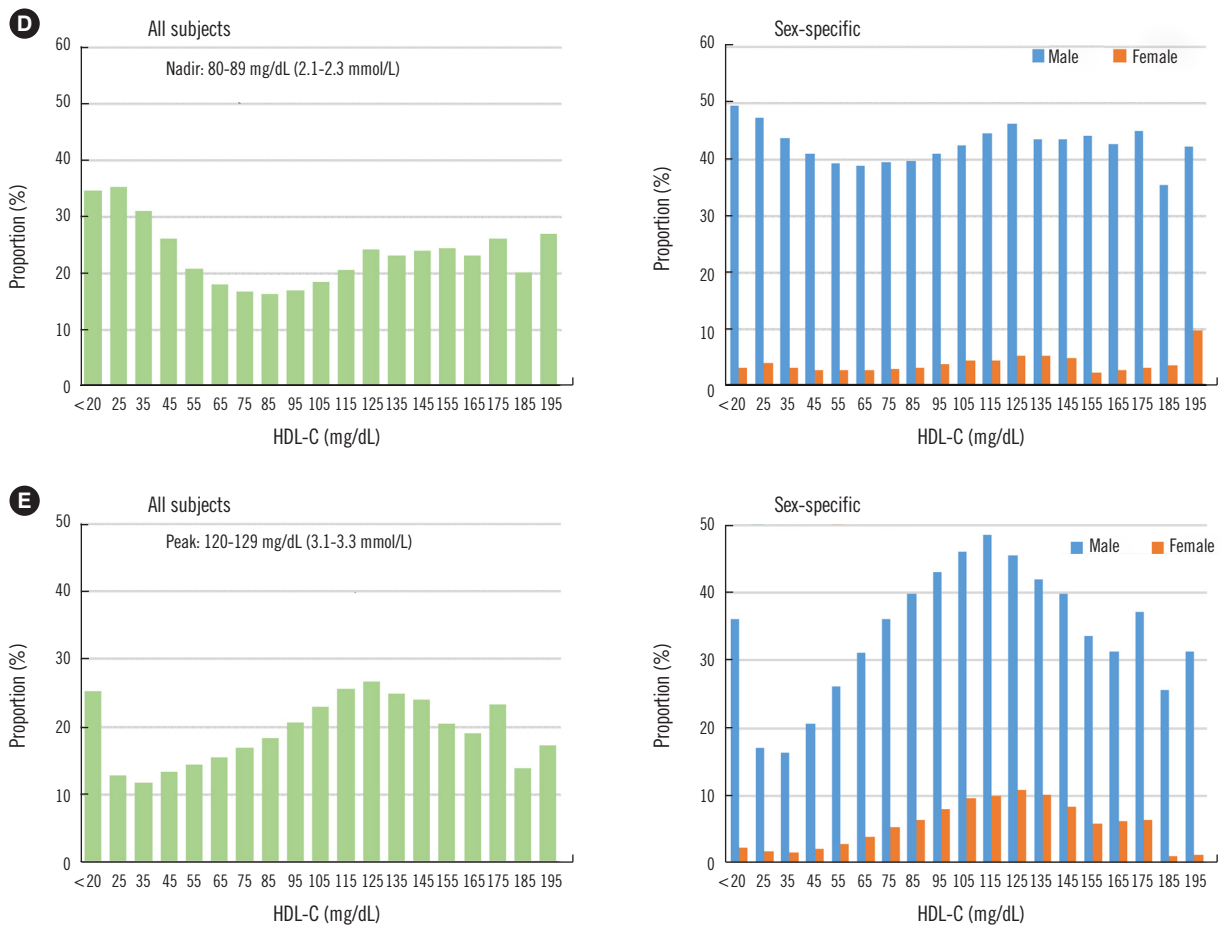
Supplemental Data Table S1. Missing data

	Total (N = 5,703,897)	Low HDL-C (N = 1,257,072)	High HDL-C (N = 4,356,104)	Extremely high HDL-C (N = 90,721)
Missing data at baseline				
Body mass index, N (%)	1,609 (0.03)	522 (0.04)	1,071 (0.02)	16 (0.02)
Men, N	861	157	700	4
Women, N	748	365	371	12
Waist circumference, N (%)	1,844 (0.03)	587 (0.05)	1,232 (0.03)	25 (0.03)
Men, N	780	140	634	6
Women, N	1,064	447	598	19
Smoking, N (%)	35,744 (0.6)	8,612 (0.7)	26,663 (0.6)	469 (0.5)
Men, N	15,956	2,514	13,320	122
Women, N	19,788	6,098	13,343	347
Alcohol, N (%)	71,588 (1.3)	19,457 (1.5)	51,385 (1.2)	746 (0.8)
Men, N	30,040	5,685	24,185	170
Women, N	41,548	13,772	27,200	576
Lost to follow-up				
Lost to follow-up, N (%)	35,744 (0.6)	7,182 (0.6)	27,884 (0.6)	678 (0.7)
Men, N	20,036	2,753	17,025	258
Women, N	15,708	4,429	10,859	420

Abbreviation: HDL-C, high-density lipoprotein cholesterol.



Supplemental Data Figure S1. Covariates. Sex-stratified multifactorial adjustment was performed with four categorical variables [hypertension, diabetes mellitus, smoking (never, past, and current), alcohol consumption (none, 1 time/week, 2 times/week, and ≥ 3 times/week)] and four continuous variables (age, body mass index (BMI), low-density lipoprotein cholesterol (LDL-C), triglycerides). All continuous variables revealed inverse weak correlations with the baseline high-density lipoprotein cholesterol (HDL-C) levels (all, $P < 0.0001$): age (total $r = -0.048$, men $r = 0.014$, women $r = -0.13$), BMI (total $r = -0.19$, men $r = -0.21$, women $r = -0.15$), LDL-C (total $r = -0.02$, men $r = -0.025$, women $r = -0.029$), and triglycerides (total $r = -0.31$, men $r = -0.27$, women $r = -0.31$). To convert the HDL-C levels from mg/dL to mmol/L, divide by 38.6. (A) Hypertension (nadir: 50-59 mg/dL in men, 80-89 mg/dL in women). (B) Diabetes mellitus (nadir: 70-79 mg/dL in men, 90-99 mg/dL in women). (C) Obesity (body mass index (BMI) > 25 kg/m²) (nadir: 100-109 mg/dL in both men and women); BMI was used as a continuous variable for covariate adjustment. *(Continued to the next page)*



Supplemental Data Figure S1. Continued. (D) Smoking (current); smoking behavior was classified into three categories (never, past, and current) for covariate adjustment. (E) Alcohol (\geq three times/week) (peak: 110-119 mg/dL in men, 120-129 mg/dL in women); alcohol consumption was classified into four categories (none, one time/week, two times/week, and \geq three times/week) for covariate adjustment.