

Supplemental Online Content

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This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Missing information on visit-level participants' characteristics

Variables	Number of missing values, No. (%) (Among 329,309 visits)
Age	0 (0)
Female gender	0 (0)
Body Mass Index	19 (0.01)
Interval between visits	0 (0)
Prior LDL-cholesterol	29 (0.01)
Prior HDL-cholesterol	29 (0.01)
Hypertension	0 (0)
Diabetes	0 (0)
Alcohol information	0 (0)
Smoke	0 (0)
Daily Physical Activity	0 (0)
Exercise	0 (0)
Diet	
Carbohydrate	603 (0.18)
Meat and Eggs	609 (0.18)
Seafood	605 (0.18)
Soy	607 (0.18)
Milk and dairy product	602 (0.18)
Vegetables	609 (0.18)
Fruits	606 (0.18)
Sweets	597 (0.18)
Fatty Diet	603 (0.18)
Eating until becoming full	588 (0.18)
Eating out	595 (0.18)
Snacks between meals	592 (0.18)

eTable 2. Standard drink volume for each alcoholic beverage

Beverage	Volume [mL]	Approximate Equivalent
Beer	250	-
Wine	104	0.9 glasses
Sake	84	0.47 of a Japanese traditional sake bottle
Shochu	50	0.5 glass
Whiskey	31	1 shot

eTable 3. Participant-level lifestyle questionnaire results

Characteristic		Cohort 1		Cohort 2	
Participants, No. (%)		No alcohol-initiation cohort 24,664 participants	Alcohol-initiation cohort 9,673 participants	Alcohol-continued cohort 17,884 participants	Alcohol cessation cohort 11,178 participants
Questionnaire					
Lifestyle					
Smoke	Never	19063 (77.3)	7089 (73.3)	10600 (59.3)	7879 (70.5)
	Previous	3897 (15.8)	1874 (19.4)	5208 (29.1)	2374 (21.2)
	Current	1704 (6.9)	710 (7.3)	2076 (11.6)	925 (8.3)
Daily Physical Activity	Very low	3121 (12.7)	1181 (12.2)	1756 (9.8)	1336 (12.0)
	Low	8043 (32.6)	3193 (33.0)	5688 (31.8)	3861 (34.5)
	Moderate	11601 (47.0)	4524 (46.8)	8790 (49.2)	5129 (45.9)
Exercise	High	1899 (7.7)	775 (8.0)	1650 (9.2)	852 (7.6)
	Almost none	9098 (36.9)	3424 (35.4)	5110 (28.6)	3710 (33.2)
	1-2 days / week	8459 (34.3)	3505 (36.2)	7220 (40.4)	4299 (38.5)
	3-5 days / week	4568 (18.5)	1807 (18.7)	3551 (19.9)	2081 (18.6)
	Almost everyday	2539 (10.3)	937 (9.7)	2003 (11.2)	1088 (9.7)
Diet					
Carbohydrate	Less than 1 serving/day	318 (1.3)	170 (1.8)	299 (1.7)	201 (1.8)
	1 serving/day	2327 (9.4)	1163 (12.0)	2910 (16.3)	1511 (13.5)
	2 servings/day	6073 (24.6)	2666 (27.6)	5715 (32.0)	3171 (28.4)
	≥ 3 servings/day	15946 (64.7)	5674 (58.7)	8960 (50.1)	6295 (56.3)
Meat and Eggs	Less frequently	391 (1.6)	95 (1.0)	119 (0.7)	95 (0.8)
	1-2 days/week	4713 (19.1)	1688 (17.5)	3342 (18.7)	1977 (17.7)
	3-4 days/week	13722 (55.6)	5469 (56.5)	10399 (58.1)	6373 (57.0)
	≥ 5 days/week	5838 (23.7)	2421 (25.0)	4024 (22.5)	2733 (24.4)
Seafood	Less frequently	2042 (8.3)	772 (8.0)	738 (4.1)	789 (7.1)
	1-2 days/week	12032 (48.8)	4879 (50.4)	8180 (45.7)	5507 (49.3)
	3-4 days/week	9099 (36.9)	3537 (36.6)	7606 (42.5)	4238 (37.9)
	≥ 5 days/week	1491 (6.0)	485 (5.0)	1360 (7.6)	644 (5.8)

		No alcohol-initiation cohort 24,664 participants	Alcohol-initiation cohort 9,673 participants	Alcohol-continued cohort 17,884 participants	Alcohol cessation cohort 11,178 participants
Soy	Less frequently	1839 (7.5)	666 (6.9)	984 (5.5)	800 (7.2)
	1-2 days/week	8767 (35.5)	3564 (36.8)	6926 (38.7)	4164 (37.3)
	3-4 days/week	8435 (34.2)	3359 (34.7)	6220 (34.8)	3871 (34.6)
	≥ 5 days/week	5623 (22.8)	2084 (21.5)	3754 (21.0)	2343 (21.0)
Milk and daily product	Less frequently	2197 (8.9)	932 (9.6)	1764 (9.9)	1055 (9.4)
	1-2 cup/week	3799 (15.4)	1568 (16.2)	3160 (17.7)	1894 (16.9)
	3-4 cup/week	4976 (20.2)	2021 (20.9)	3877 (21.7)	2287 (20.5)
	1 cup/day	10394 (42.1)	4027 (41.6)	7340 (41.0)	4679 (41.9)
Vegetables	≥ 1.5 cups/day	3298 (13.4)	1125 (11.6)	1743 (9.7)	1263 (11.3)
	Almost none	234 (0.9)	96 (1.0)	107 (0.6)	110 (1.0)
	Not everyday	1218 (4.9)	487 (5.0)	703 (3.9)	522 (4.7)
	1-2 dishes/day	10085 (40.9)	3999 (41.3)	7381 (41.3)	4856 (43.4)
	3-4 dishes/day	9457 (38.3)	3734 (38.6)	7229 (40.4)	4201 (37.6)
	5-6 dish/day	3148 (12.8)	1172 (12.1)	2144 (12.0)	1286 (11.5)
	≥ 7 dishes/day	522 (2.1)	185 (1.9)	320 (1.8)	203 (1.8)
	Less frequently	3730 (15.1)	1859 (19.2)	3693 (20.6)	2119 (19.0)
Fruits	1-2 dishes/week	4971 (20.2)	2114 (21.9)	3992 (22.3)	2465 (22.1)
	3-4 dishes/week	3880 (15.7)	1510 (15.6)	2887 (16.1)	1805 (16.1)
	1 dish/day	8718 (35.3)	3177 (32.8)	5785 (32.3)	3665 (32.8)
	2 dishes/day	2861 (11.6)	891 (9.2)	1346 (7.5)	984 (8.8)
	≥ 3 dishes/day	504 (2.0)	122 (1.3)	181 (1.0)	140 (1.3)
	Less frequently	2338 (9.5)	1064 (11.0)	3707 (20.7)	1383 (12.4)
	1-2 days/week	7075 (28.7)	3092 (32.0)	6362 (35.6)	3616 (32.3)
	3-4 days/week	7384 (29.9)	2878 (29.8)	4457 (24.9)	3299 (29.5)
Sweets	≥ 5 days/week	7867 (31.9)	2639 (27.3)	3358 (18.8)	2880 (25.8)
	Almost none	5135 (20.8)	1713 (17.7)	3047 (17.0)	1904 (17.0)
	Sometimes	16308 (66.1)	6572 (67.9)	12464 (69.7)	7628 (68.2)
	Often	3221 (13.1)	1388 (14.3)	2373 (13.3)	1646 (14.7)
Fatty Diet					

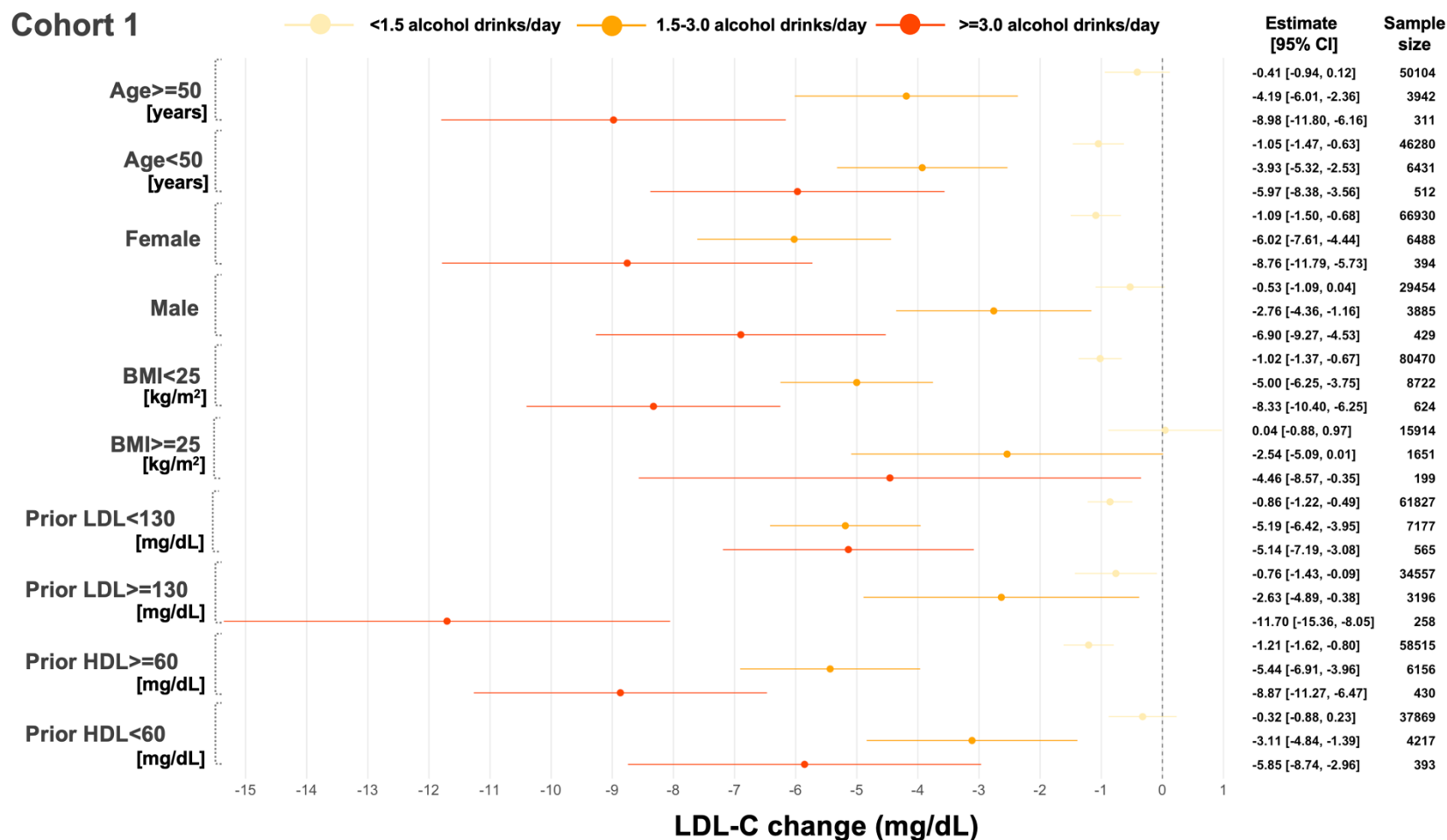
		No alcohol-initiation cohort 24,664 participants	Alcohol-initiation cohort 9,673 participants	Alcohol-continued cohort 17,884 participants	Alcohol cessation cohort 11,178 participants
Eating until becoming full	Almost none	3509 (14.2)	1339 (13.8)	2665 (14.9)	1462 (13.1)
	Sometimes	13970 (56.6)	5531 (57.2)	10795 (60.4)	6436 (57.6)
	Often	7185 (29.1)	2803 (29.0)	4424 (24.7)	3280 (29.3)
Eating out	Less frequently	11829 (48.0)	3924 (40.6)	5915 (33.1)	3714 (33.2)
	1-2 days/week	9213 (37.4)	4089 (42.3)	8068 (45.1)	5073 (45.4)
	3-4 days/week	2216 (9.0)	1028 (10.6)	2605 (14.6)	1546 (13.8)
	≥ 5 days/week	1406 (5.7)	632 (6.5)	1296 (7.2)	845 (7.6)
Snacks between meals	Almost none	4372 (17.7)	1942 (20.1)	6167 (34.5)	2457 (22.0)
	Sometimes	12899 (52.3)	5187 (53.6)	8683 (48.6)	6018 (53.8)
	Often	7393 (30.0)	2544 (26.3)	3034 (17.0)	2703 (24.2)

eTable 4. Multivariable adjusted models evaluating the association between initiating and ceasing alcohol consumption and changes in lipid concentration with 99% confidence intervals

Alcohol Initiation (Cohort 1)			
Exposure	Model 1, β (99% CI)	Model 2, β (99% CI)	Model 3, β (99% CI)
LDL-C change			
One unit increase of alcohol	-1.58 (-1.91 to -1.24)	-1.60 (-1.94 to -1.27)	-1.59 (-1.92 to -1.25)
Overall initiation	-1.26 (-1.68 to -0.84)	-1.29 (-1.70 to -0.87)	-1.27 (-1.69 to -0.85)
HDL-C change			
One unit increase of alcohol	1.14 (1.00 to 1.28)	1.15 (1.01 to 1.29)	1.15 (1.01 to 1.29)
Overall initiation	0.84 (0.66 to 1.02)	0.85 (0.68 to 1.03)	0.85 (0.68 to 1.03)
Alcohol cessation (Cohort 2)			
LDL-C change			
One unit decrease of alcohol	1.39 (1.11 to 1.67)	1.41 (1.13 to 1.69)	1.41 (1.13 to 1.69)
Overall cessation	1.41 (0.94 to 1.88)	1.48 (1.01 to 1.95)	1.48 (1.01 to 1.95)
HDL-C change			
One unit decrease of alcohol	-1.26 (-1.39 to -1.13)	-1.25 (-1.38 to -1.12)	-1.25 (-1.39 to -1.13)
Overall cessation	-1.62 (-1.84 to -1.41)	-1.59 (-1.80 to -1.37)	-1.59 (-1.80 to -1.37)
Model 1: Adjusted for age, sex, BMI, prior LDL-C/HDL-C cholesterol Model 2: Adjusted for covariates in model 1 plus history of hypertension, history of diabetes, dietary habits (frequency of carbohydrates; meat and eggs; seafood; vegetables; fruits; milk and dairy products; soy; fat-rich diet; sweets, and frequency of eating until full, eating out and snacks between meals) Model 3: Adjusted for covariates in model 2 plus smoking, daily physical activity and exercise level In cohort 2, analyses additionally adjusted for the amount of alcohol intake and frequency of alcohol intake			

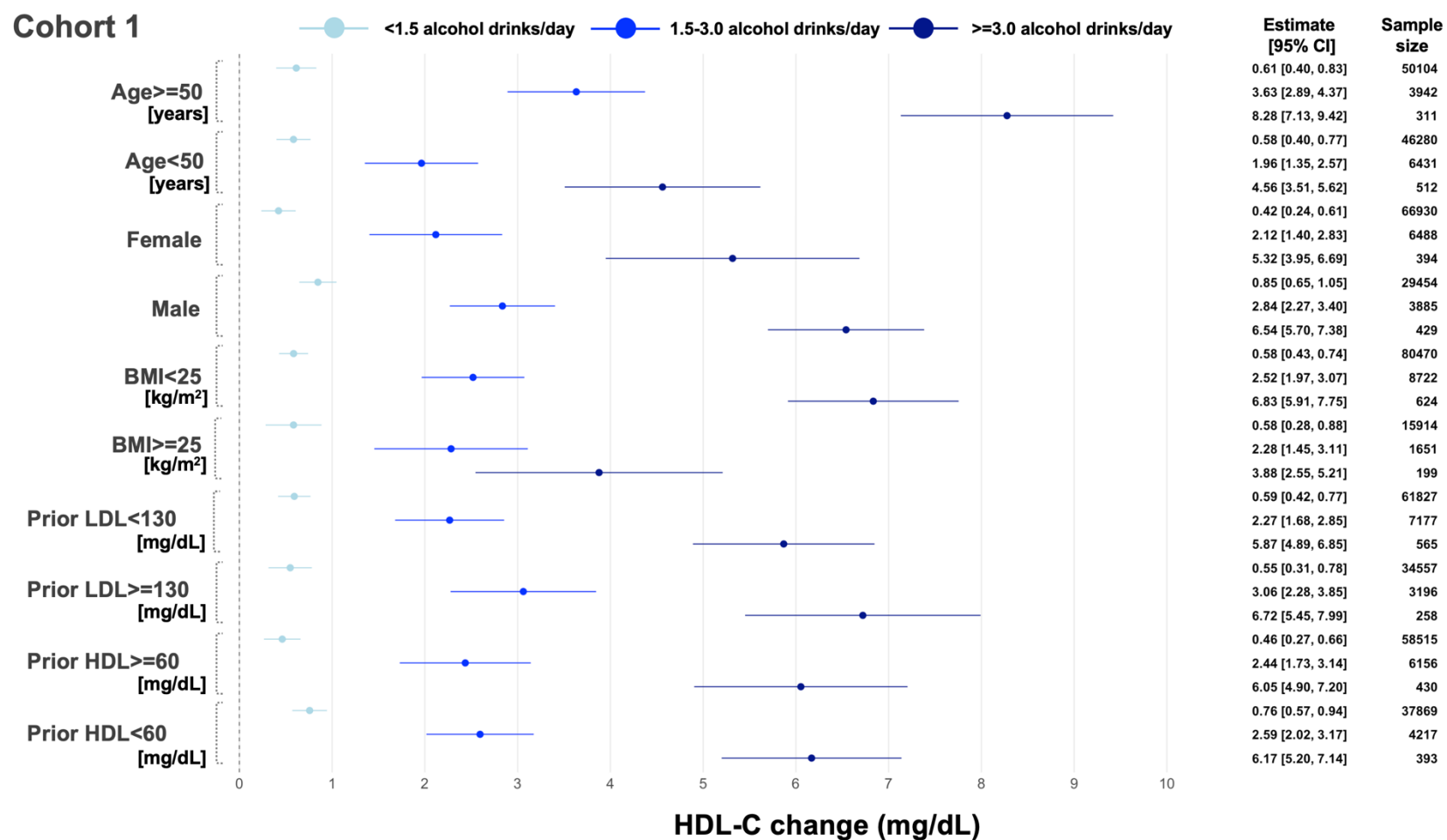
eFigure 1. Subgroup analysis of adjusted association between initiating alcohol consumption (categorical) and changes in LDL cholesterol

Results from the fully-adjusted model (Model 3) are presented. LDL, low density lipoprotein; HDL, high density lipoprotein



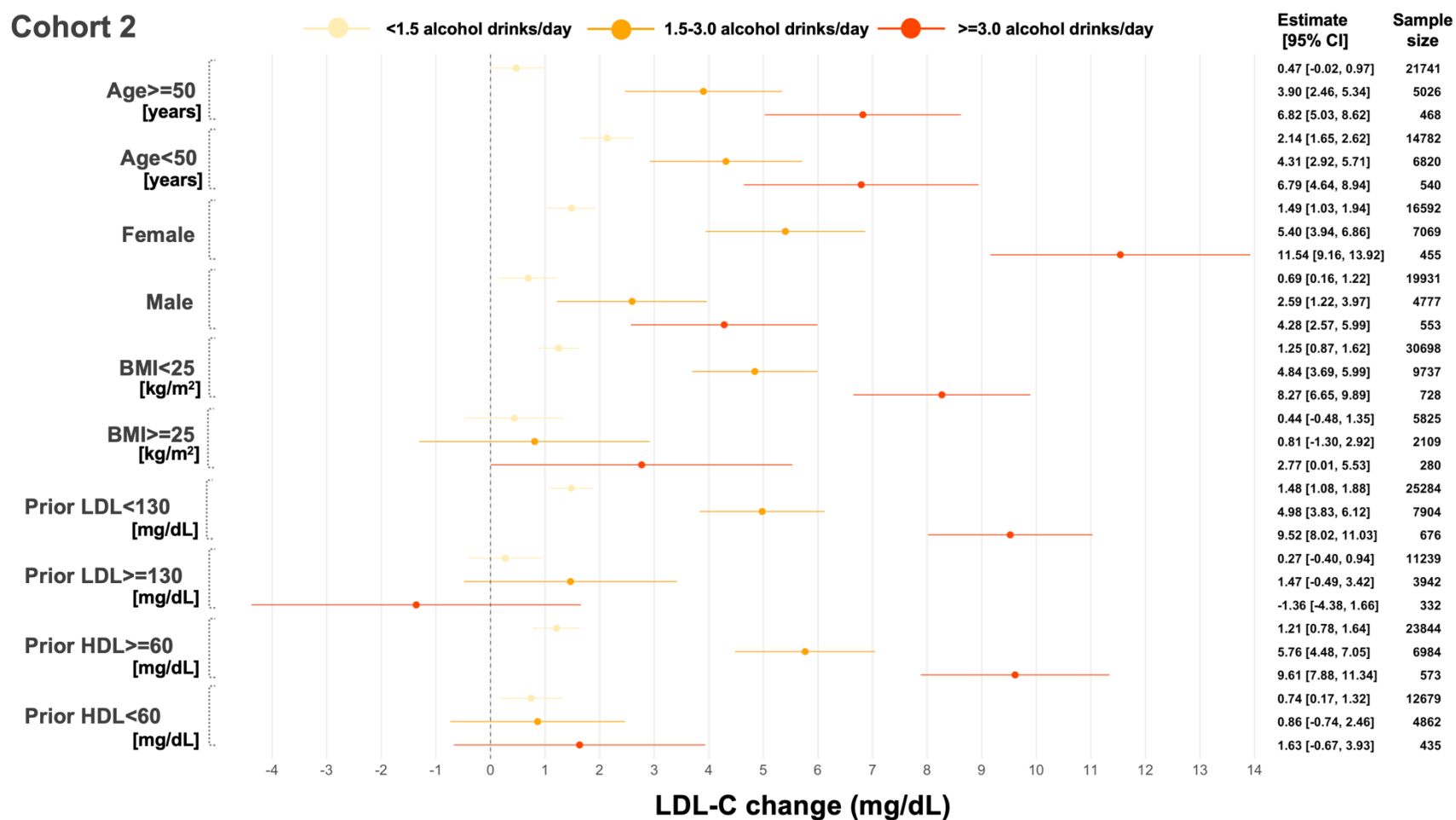
eFigure 2. Subgroup analysis of adjusted association between initiating alcohol consumption (categorical) and changes in HDL cholesterol

Results from the fully-adjusted model (Model 3) are presented. LDL, low density lipoprotein; HDL, high density lipoprotein



eFigure 3. Subgroup analysis of adjusted association between ceasing alcohol consumption (categorical) and changes in LDL cholesterol

Results from the fully-adjusted model (Model 3) are presented. LDL, low density lipoprotein; HDL, high density lipoprotein



eFigure 4. Subgroup analysis of adjusted association between ceasing alcohol consumption (categorical) and changes in HDL cholesterol

Results from the fully-adjusted model (Model 3) are presented. LDL, low density lipoprotein; HDL, high density lipoprotein

