Supplemental Online Content

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eTable 1. Characteristics by TC Trajectory Group

Characteristics	Low-Stable (n=265)	Low-Slow Increase (n=556)	Low-Rapid Increase (n=173)	Moderate-Stable (n=172)	High-Stable (n=35)	P
White, n (%)	173 (65.3)	384 (69.1)	132 (76.3)	100 (58.1)	20 (57.1)	0.003
Male, n (%)	119 (44.9)	226 (40.6)	89 (51.4)	62 (36.0)	14 (40.0)	0.04
Childhood						
Age, mean (SD), y	12.4 (4.8)	12.2 (4.4)	12.7 (4.2)	11.0 (4.4)	11.0 (3.4)	0.003
BMI, mean (SD), kg/m^2	19.1 (4.3)	19.0 (4.2)	19.6 (4.6)	18.9 (4.2)	18.9 (3.2)	0.51
SBP, mean (SD), mm Hg	103 (11)	102.4 (11)	104 (10)	101 (11)	105 (13)	0.12
DBP, mean (SD), mm Hg	64 (10)	63.1 (10)	64 (9)	62 (10)	64 (10)	0.27
Glucose, mean (SD), mg/dL	86.3 (8.2)	86.7 (8.5)	87.9 (8.5)	87.4 (14.9)	89.1 (7.0)	0.25
TC, mean (SD), mg/dL	130.9 (17.6)	152.0 (17.5)	168.0 (20.3)	182.1 (23.2)	212.4 (31.1)	<0.001
non-HDL-C, mean (SD), mg/dL	73.4 (17.9)	90.9 (20.1)	106.6 (24.9)	114.5 (27.8)	137.5 (34.9)	<0.001
LDL-C, mean (SD), mg/dL	67.5 (15.9)	83.6 (17.4)	97.8 (20.8)	106.1 (23.8)	127.9 (31.6)	<0.001
TG, median (IQR), mg/dL	53.0 (42.0-68.0)	59.0 (47.0-77.0)	65.0 (50.0-88.0)	66.5 (50.0-84.0)	64.0 (52.0-91.0)	<0.001
HDL-C, mean (SD), mg/dL	57.4 (16.5)	61.1 (16)	61.4 (20)	67.6 (20.8)	74.9 (24.2)	<0.001
Adulthood						
Age, mean (SD), y	45.5 (7.2)	46.1 (6.7)	46.1 (6.2)	44.5 (6.7)	45.5 (6.6)	0.08
BMI, mean (SD), kg/m^2	30.5 (8)	30.7 (7.3)	31.3 (7.1)	31.8 (8)	33.3 (8.0)	0.11
SBP, mean (SD), mm Hg	122 (17)	122 (17)	121 (13)	122 (17)	123 (17)	0.91
DBP, mean (SD), mm Hg	78 (11)	79 (11)	79 (9)	79 (12)	81 (10)	0.75
Glucose, mean (SD), mg/dL	103 (36.6)	101.4 (32.3)	110.4 (56.1)	105.5 (38.1)	110.3 (51.6)	0.08
TC, mean (SD), mg/dL	159.4 (26.7)	195.1 (31.4)	233.7 (39.2)	194.9 (32.6)	257.4 (54.2)	<0.001
non-HDL-C, mean (SD), mg/dL	110.6 (27.8)	142.6 (34.6)	181.5 (40.7)	142.9 (34.9)	199.0 (56.5)	<0.001
LDL-C, mean (SD), mg/dL	88.9 (24.2)	119.2 (29.1)	152.6 (32.8)	123.4 (30.1)	176.2 (65.8)	<0.001
TG, median (IQR), mg/dL	90.0 (67-131)	109.0 (76.0-153.0)	151.0 (95.0-226.0)	102.5 (76.0-143.0)	153.0 (99.0-252.0)	<0.001
HDL-C, mean (SD), mg/dL	48.5 (14.7)	51.3 (15.7)	51 (16.3)	51.9 (15.6)	57.3 (14.3)	0.009
Lipid-lowing Medication, n (%)	13 (4.9)	49 (8.8)	37 (21.4)	40 (23.3)	11 (31.4)	<0.001
Hypertension, n (%)	101 (38.1)	206 (37.1)	70 (40.5)	78 (45.3)	19 (54.3)	0.12
Diabetes, n (%)	40 (15.1)	77 (13.8)	33 (19.1)	31 (18.0)	5 (14.3)	0.43
Smoking, n (%)	74 (27.9)	163 (29.3)	59 (34.1)	47 (27.3)	8 (22.9)	0.53
Alcohol drinking, n (%)	90 (34.0)	194 (34.9)	60 (34.7)	49 (28.5)	6 (17.1)	0.15
Carotid IMT, mean (SD), mm	0.871 (0.258)	0.918 (0.294)	0.958 (0.290)	0.897 (0.289)	1.033 (0.380)	0.002

Abbreviations: BMI, body mass index; SBP, systolic blood pressure; DBP, diastolic blood pressure; TC, total cholesterol; non-HDL-C, Non-high-density lipoprotein-cholesterol; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; TG, triglycerides; IMT, intima-media thickness.

SI conversion factor: To convert glucose to mmol/L, multiply by 0.0555; to convert TC, non-HDL-C, LDL-C, and HDL-

C to mmol/L, multiply by 0.0259; to convert TG to mmol/L, multiply by 0.0113.

One-way ANOVA and chi-square tests were performed for continuous variables and categorical variables, respectively.

eTable 2. Characteristics by Non-HDL-C Trajectory Group

Characteristics	Low-Stable (n=316)	Low-Slow Increase (n=561)	Low-Rapid Increase (n=143)	Moderate-Stable (n=165)	High-Stable (n=16)	P
White, n (%)	190 (60.1)	378 (67.4)	109 (76.2)	119 (72.1)	13 (81.3)	0.003
Male, n (%)	127 (40.2)	227 (40.5)	91 (63.6)	60 (36.4)	5 (31.3)	<0.001
Childhood						
Age, mean (SD), y	12.6 (4.7)	12.0 (4.4)	12.8 (3.8)	10.9 (4.4)	12.3 (6.6)	<0.001
BMI, mean (SD), kg/m^2	18.8 (4.2)	19 (4.2)	19.3 (4.1)	19.6 (4.8)	21.9 (5.4)	0.02
SBP, mean (SD), mm Hg	103 (11)	103 (11)	104 (11)	102 (11)	107 (9)	0.15
DBP, mean (SD), mm Hg	64 (10)	63 (10)	65 (9)	62 (10)	64 (11)	0.04
Glucose, mean (SD), mg/dL	86.2 (8.5)	87.0 (8.8)	88.1 (8.3)	87.1 (14.3)	91.6 (6.6)	0.11
TC, mean (SD), mg/dL	136.8 (20.1)	154.2 (20.6)	163.7 (22.0)	183.8 (24.5)	222.8 (35.8)	<0.001
non-HDL-C, mean (SD), mg/dL	72.5 (16.4)	91.9 (17.7)	102.6 (19.0)	128.3 (25.3)	168 (31.1)	<0.001
LDL-C, mean (SD), mg/dL	67.3 (14.9)	84.9 (16.0)	94.4 (17.1)	116.6 (21.8)	150.3 (30.0)	<0.001
TG, median (IQR), mg/dL	52.0 (41.0-65.0)	59.0 (46.0-76.0)	65.0 (51.0-86.0)	78.0 (57.0-106.0)	91.5 (65.0-126.0)	<0.001
HDL-C, mean (SD), mg/dL	64.3 (16.7)	62.3 (17.2)	61.1 (18.4)	55.5 (21.1)	54.7 (24.9)	<0.001
Adulthood						
Age, mean (SD), y	46.2 (6.9)	45.9 (6.8)	46.1 (6.5)	43.9 (6.8)	45.5 (4.7)	0.008
BMI, mean (SD), kg/m^2	29.4 (7.0)	31.2 (7.7)	31.7 (7.3)	32.0 (8.0)	36.2 (7.0)	<0.001
SBP, mean (SD), mm Hg	122 (17)	122 (17)	123 (14)	121 (16)	129 (17)	0.31
DBP, mean (SD), mm Hg	78 (11)	79 (11)	80 (9)	79 (12)	84 (10)	0.09
Glucose, mean (SD), mg/dL	98.7 (28.5)	103.1 (35.8)	112.4 (57.0)	105.6 (41.2)	138.6 (69.5)	<0.001
TC, mean (SD), mg/dL	166.1 (28.4)	195.2 (32.9)	229.2 (43.9)	210 (36.6)	281.7 (66.6)	<0.001
non-HDL-C, mean (SD), mg/dL	109.2 (26.6)	143.4 (31.9)	183.4 (44.3)	162.2 (34.4)	237.4 (62.4)	<0.001
LDL-C, mean (SD), mg/dL	89.3 (22.6)	121.4 (29.1)	151.9 (35.6)	135.9 (30.5)	212.3 (83.4)	<0.001
TG, median (IQR), mg/dL	84.5 (63.0-113.5)	111.0 (77.0-155.0)	170.0 (107.0-241.0)	125.5 (89.5-185.5)	187.0 (114.5-293.5)	<0.001
HDL-C, mean (SD), mg/dL	55.8 (17.5)	50.7 (14.9)	45.6 (12.2)	47.5 (14.2)	43.7 (12.1)	<0.001
Lipid-lowing Medication, n (%)	15 (4.7)	57 (10.2)	39 (27.3)	33 (20.0)	6 (37.5)	<0.001
Hypertension, n (%)	114 (36.1)	217 (38.7)	61 (42.7)	69 (41.8)	13 (81.3)	0.006
Diabetes, n (%)	37 (11.7)	83 (14.8)	27 (18.9)	34 (20.6)	5 (31.3)	0.02
Smoking, n (%)	82 (25.9)	171 (30.5)	47 (32.9)	43 (26.1)	8 (50.0)	0.12
Alcohol drinking, n (%)	114 (36.1)	187 (33.3)	48 (33.6)	47 (28.5)	3 (18.8)	0.37
Carotid IMT, mean (SD), mm	0.856 (0.211)	0.910 (0.287)	0.987 (0.328)	0.947 (0.338)	1.158 (0.475)	<0.001

Abbreviations: BMI, body mass index; SBP, systolic blood pressure; DBP, diastolic blood pressure; TC, total cholesterol; non-HDL-C, Non-high-density lipoprotein-cholesterol; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; TG, triglycerides; IMT, intima-media thickness.

SI conversion factor: To convert glucose to mmol/L, multiply by 0.0555; to convert TC, non-HDL-C, LDL-C, and HDL-

C to mmol/L, multiply by 0.0259; to convert TG to mmol/L, multiply by 0.0113.

One-way ANOVA and chi-square tests were performed for continuous variables and categorical variables, respectively.

eTable 3. Characteristics by LDL-C Trajectory Group

Characteristics	Low-Stable (n=299)	Low-Slow Increase (n=550)	Low-Rapid Increase (n=199)	Moderate-Stable (n=134)	High-Stable (n=19)	P
White, n (%)	182 (60.9)	376 (68.4)	145 (72.9)	92 (68.7)	14 (73.7)	0.06
Male, n (%)	123 (41.1)	224 (40.7)	104 (52.3)	51 (38.1)	8 (42.1)	0.04
Childhood						
Age, mean (SD), y	12.4 (4.6)	12.2 (4.6)	12.5 (4.0)	10.9 (4.3)	11.3 (3.7)	0.009
BMI, mean (SD), kg/m²	18.8 (4.0)	19 (4.3)	19.6 (4.4)	19.2 (4.4)	19.7 (3.8)	0.28
SBP, mean (SD), mm Hg	103 (12)	103 (11)	104 (11)	102 (11)	103 (10)	0.35
DBP, mean (SD), mm Hg	64 (10)	63 (10)	64 (10)	62 (10)	63 (10)	0.31
Glucose, mean (SD), mg/dL	86.3 (8.5)	87.2 (10.6)	87.5 (8.8)	86.4 (8.8)	90.6 (6.2)	0.23
TC, mean (SD), mg/dL	136.1 (20.2)	152.7 (20.0)	167.9 (21.7)	185.4 (24.7)	215.1 (37.3)	<0.001
non-HDL-C, mean (SD), mg/dL	73.2 (18.4)	90.8 (18.0)	105.4 (21.0)	128.9 (26.1)	153.1 (36.8)	<0.001
LDL-C, mean (SD), mg/dL	67.2 (16.0)	83.8 (15.6)	97.2 (18.0)	118 (22.3)	141.4 (33.4)	<0.001
TG, median (IQR), mg/dL	53.0 (42.0-69.0)	57.0 (46.0-76.0)	65.0 (49.0-83.0)	75.5 (58.0-99.0)	65.0 (58.0-92.0)	<0.001
HDL-C, mean (SD), mg/dL	62.9 (17.5)	61.9 (16.8)	62.4 (19.1)	56.5 (21.1)	62.0 (26.2)	0.012
Adulthood						
Age, mean (SD), y	45.7 (7.0)	46.2 (6.8)	45.9 (6.4)	43.6 (6.8)	44.5 (5.8)	0.002
BMI, mean (SD), kg/m²	29.7 (7.3)	31.1 (7.7)	31.8 (7.4)	31.6 (7.7)	34.6 (7.9)	0.002
SBP, mean (SD), mm Hg	122 (17)	123 (17)	122 (15)	119 (16)	125 (13)	0.31
DBP, mean (SD), mm Hg	79 (11)	79 (11)	79 (10)	79 (12)	82 (10)	0.59
Glucose, mean (SD), mg/dL	99.8 (31.2)	104.8 (41.0)	106.3 (41.1)	102.4 (37.3)	125.7 (66.2)	0.03
TC, mean (SD), mg/dL	164.8 (28.0)	193.7 (33.1)	231.9 (40.8)	203.6 (35.4)	263.4 (64.6)	<0.001
non-HDL-C, mean (SD), mg/dL	108.8 (26.7)	141.9 (33.0)	183.9 (40.4)	155.6 (35.4)	211.3 (62.0)	<0.001
LDL-C, mean (SD), mg/dL	86.9 (22.0)	118.9 (27.2)	157.0 (31.0)	129.5 (27.5)	195.5 (75.7)	<0.001
TG, median (IQR), mg/dL	88.0 (65.0-131.0)	108.0 (76.0-152.0)	138.0 (92.0-208.0)	121.5 (84.0-181.0)	124.0 (88.0-194.0)	<0.001
HDL-C, mean (SD), mg/dL	54.5 (17)	50.7 (15.6)	48.3 (13.1)	47.7 (14.5)	49.7 (13.5)	<0.001
Lipid-lowing Medication, n (%)	13 (4.3)	64 (11.6)	33 (16.6)	33 (24.6)	7 (36.8)	<0.001
Hypertension, n (%)	112 (37.5)	212 (38.5)	83 (41.7)	54 (40.3)	13 (68.4)	0.10
Diabetes, n (%)	39 (13.0)	89 (16.2)	36 (18.1)	18 (13.4)	4 (21.1)	0.48
Smoking, n (%)	80 (26.8)	171 (31.1)	62 (31.2)	31 (23.1)	7 (36.8)	0.28
Alcohol drinking, n (%)	111 (37.1)	180 (32.7)	67 (33.7)	36 (26.9)	5 (26.3)	0.29
Carotid IMT, mean (SD), mm	0.844 (0.204)	0.929 (0.301)	0.969 (0.323)	0.906 (0.319)	1.044 (0.320)	<0.001

Abbreviations: BMI, body mass index; SBP, systolic blood pressure; DBP, diastolic blood pressure; TC, total cholesterol; non-HDL-C, Non-high-density lipoprotein-cholesterol; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; TG, triglycerides; IMT, intima-media thickness.

SI conversion factor: To convert glucose to mmol/L, multiply by 0.0555; to convert TC, non-HDL-C, LDL-C, and HDL-C to mmol/L, multiply by 0.0259; to convert TG to mmol/L, multiply by 0.0113.

One-way ANOVA and chi-square tests were performed for continuous variables and categorical variables, respectively.

eTable 4. Characteristics by TG Trajectory Group

Characteristics	Low-Stable (n=237)	Low-Slow Increase (n=505)	Low-Rapid Increase (n=191)	Moderate-Stable (n=202)	Moderate-Rapid Increase (n=66)	P
White, n (%)	112 (47.3)	333 (65.9)	144 (75.4)	165 (81.7)	55 (83.3)	<0.001
Male, n (%)	79 (33.3)	194 (38.4)	128 (67.0)	68 (33.7)	41 (62.1)	<0.001
Childhood						
Age, mean (SD), y	12.2 (4.5)	12.2 (4.4)	11.9 (4)	11.9 (4.7)	12.7 (5.2)	0.76
BMI, mean (SD), kg/m^2	18.3 (3.8)	18.9 (4.1)	18.7 (3.4)	20.3 (5.2)	20.6 (5.0)	<0.001
SBP, mean (SD), mm Hg	102 (12)	103 (11)	103 (11)	103 (11)	105 (10)	0.16
DBP, mean (SD), mm Hg	63 (10)	63 (10)	63 (10)	64 (10)	66 (9)	0.47
Glucose, mean (SD), mg/dL	85.8 (9.2)	86.7 (8.4)	87.5 (9.2)	87.1 (8.4)	91.7 (18.7)	<0.001
TC, mean (SD), mg/dL	149.1 (24.7)	153.5 (25)	153.8 (25.8)	168.6 (29.5)	162.3 (32.0)	<0.001
non-HDL-C, mean (SD), g/dL	82.7 (23.5)	89.8 (22.7)	90.9 (21.2)	115.0 (28.2)	112.5 (36.1)	<0.001
LDL-C, mean (SD), mg/dL	77.7 (22.0)	83.6 (20.9)	84.4 (19.8)	102.6 (25.8)	99.0 (30.2)	<0.001
TG, median (IQR), mg/dL	47.0 (38.0-58.0)	57.0 (46.0-71.0)	57.0 (47.0-74.0)	89.5 (68.0-114.0)	95.0 (77.0-111.0)	<0.001
HDL-C, mean (SD), mg/dL	66.5 (16.3)	63.7 (16.0)	62.9 (19.2)	53.6 (19.6)	49.8 (19.3)	<0.001
Adulthood						
Age, mean (SD), y	46.1 (6.4)	45.8 (7.0)	45.1 (7.0)	45.5 (6.5)	46.0 (7.0)	0.62
BMI, mean (SD), kg/m^2	29.3 (7.0)	30.6 (7.7)	31.9 (6.5)	32.2 (8.5)	33.6 (7.4)	<0.001
SBP, mean (SD), mm Hg	120 (17)	122 (17)	125 (15)	120 (16)	127 (16)	<0.001
DBP, mean (SD), mm Hg	77 (11)	79 (11)	81 (10)	79 (11)	83 (11)	<0.001
Glucose, mean (SD), mg/dL	96.6 (26.8)	100.4 (32.0)	113.3 (52.8)	102.5 (33.2)	134.3 (67.6)	<0.001
TC, mean (SD), mg/dL	181.2 (34)	192.1 (38.0)	200.5 (44.5)	201.9 (39.9)	226.4 (52.6)	<0.001
non-HDL-C, mean (SD), g/dL	121.5 (32.3)	139.8 (37.8)	156.4 (44.2)	150.8 (40.1)	185.7 (51.1)	<0.001
LDL-C, mean (SD), mg/dL	105.8 (30.3)	119 (34.1)	125.5 (40.4)	128.8 (42.6)	129.3 (42.0)	<0.001
TG, median (IQR), mg/dL	66.0 (53.0-81.0)	98.0 (77.0-126.0)	187.0 (136.0-235.0)	141.5 (105.0-176.5)	275.5 (207.0-350.0)	<0.001
HDL-C, mean (SD), mg/dL	58.9 (16.3)	51.4 (14.6)	44.8 (13.2)	49.8 (15.6)	39.1 (10.5)	<0.001
Lipid-lowing Medication, n (%)	20 (8.4)	50 (9.9)	29 (15.2)	33 (16.3)	18 (27.3)	<0.001
Hypertension, n (%)	76 (32.1)	201 (39.8)	83 (43.5)	79 (39.1)	35 (53.0)	0.02
Diabetes, n (%)	22 (9.3)	62 (12.3)	44 (23.0)	34 (16.8)	24 (36.4)	<0.001
Smoking, n (%)	47 (19.8)	151 (29.9)	57 (29.8)	73 (36.1)	23 (34.8)	0.003
Alcohol drinking, n (%)	69 (29.1)	175 (34.7)	68 (35.6)	69 (34.2)	18 (27.3)	0.42
Carotid IMT, mean (SD), mm	0.851 (0.204)	0.907 (0.271)	0.956 (0.285)	0.936 (0.268)	0.994 (0.375)	<0.001

Abbreviations: BMI, body mass index; SBP, systolic blood pressure; DBP, diastolic blood pressure; TC, total cholesterol;

non-HDL-C, Non-high-density lipoprotein-cholesterol; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; TG, triglycerides; IMT, intima-media thickness.

SI conversion factor: To convert glucose to mmol/L, multiply by 0.0555; to convert TC, non-HDL-C, LDL-C, and HDL-C to mmol/L, multiply by 0.0259; to convert TG to mmol/L, multiply by 0.0113.

One-way ANOVA and chi-square tests were performed for continuous variables and categorical variables, respectively.

eTable 5. Characteristics by HDL-C Trajectory Group

Characteristics	Low-Stable (n=226)	Moderate-Slow Decrease (n=606)	Moderate-Stable (n=137)	High-Rapid Decrease (n=182)	High-Stable (n=50)	P
White, n (%)	186 (82.3)	426 (70.3)	78 (56.9)	99 (54.4)	20 (40.0)	<0.001
Male, n (%)	114 (50.4)	266 (43.9)	30 (21.9)	85 (46.7)	15 (30.0)	<0.001
Childhood						
Age, mean (SD), y	11.6 (4.4)	11.9 (4.5)	12.2 (4.7)	13.3 (4.2)	12.5 (4.6)	0.002
BMI, mean (SD), kg/m^2	20.1 (5.1)	18.9 (4.3)	18.6 (3.5)	19.0 (3.6)	18.2 (3.1)	0.001
SBP, mean (SD), mm Hg	104 (11)	102 (11)	101 (10)	104 (11)	106 (14)	0.04
DBP, mean (SD), mm Hg	64 (10)	62 (10)	64 (10)	65 (10)	68 (12)	<0.001
Glucose, mean (SD), mg/dL	86.2 (8.9)	87.5 (10.3)	85.3 (8.6)	87.9 (9.1)	85.4 (8.0)	0.03
TC, mean (SD), mg/dL	150.5 (28)	153.3 (26.3)	158.8 (26.5)	163.2 (25.5)	172.8 (26.5)	<0.001
non-HDL-C, mean (SD), g/dL	107.7 (30.9)	92.6 (25.2)	92.4 (25.1)	85.2 (22.7)	87.5 (26.0)	<0.001
LDL-C, mean (SD), mg/dL	96.1 (27.2)	85.2 (22.3)	86.6 (24.0)	80.6 (21.5)	82.4 (24.4)	<0.001
TG, median (IQR), mg/dL	77.0 (57.0-106.0)	59.0 (46.0-76.0)	58.0 (46.0-74.0)	51.0 (42.0-63.0)	55.0 (44.0-68.0)	<0.001
HDL-C, mean (SD), mg/dL	42.7 (13.8)	60.8 (13.5)	66.4 (13.7)	78 (15.6)	85.3 (14.4)	<0.001
Adulthood						
Age, mean (SD), y	45.0 (7.0)	45.3 (6.8)	46.7 (5.9)	46.8 (7.0)	46.8 (6.3)	0.009
BMI, mean (SD), kg/m^2	32.8 (7.7)	31 (7.8)	28.2 (6.8)	31.3 (6.9)	29.2 (5.8)	<0.001
SBP, mean (SD), mm Hg	123 (15)	122 (17)	120 (16)	122 (15)	120 (16)	0.39
DBP, mean (SD), mm Hg	80 (11)	79 (11)	78 (12)	78 (10)	80 (10)	0.31
Glucose, mean (SD), mg/dL	108.8 (41.7)	104.7 (38)	93.7 (39.9)	105.0 (40.8)	95.9 (20.2)	0.004
TC, mean (SD), mg/dL	187.6 (42.9)	194.0 (40.0)	205.8 (41.5)	194.5 (40.4)	202.6 (31.3)	0.006
non-HDL-C, mean (SD), g/dL	147.4 (42.8)	146.2 (40.8)	132.7 (43.5)	139.0 (42.0)	125.6 (33.7)	0.001
LDL-C, mean (SD), mg/dL	118.5 (36.6)	121.6 (37.5)	113.0 (36.0)	120.5 (38.6)	112.2 (33.0)	0.09
TG, median (IQR), mg/dL	141.0 (103.0-209.0)	107.0 (77.0-156.0)	81.5 (63.5-125.0)	102.5 (74.0-143.0)	82.0 (58.0-112.5)	<0.001
HDL-C, mean (SD), mg/dL	39.6 (9.7)	47.2 (10.9)	71.7 (15.5)	54.6 (11.3)	76.3 (16.6)	<0.001
Lipid-lowing medication, n (%)	36 (15.9)	73 (12.0)	9 (6.6)	26 (14.3)	6 (12.0)	0.11
Hypertension, n (%)	94 (41.6)	238 (39.3)	51 (37.2)	74 (40.7)	17 (34.0)	0.83
Diabetes, n (%)	52 (23.0)	94 (15.5)	8 (5.8)	28 (15.4)	4 (8.0)	<0.001
Smoking, n (%)	71 (31.4)	186 (30.7)	36 (26.3)	49 (26.9)	9 (18.0)	0.26
Alcohol drinking, n (%)	63 (27.9)	209 (34.5)	60 (43.8)	50 (27.5)	17 (34.0)	0.01
Carotid IMT, mean (SD), mm	0.975 (0.366)	0.917 (0.296)	0.879 (0.241)	0.892 (0.201)	0.851 (0.166)	0.03

Abbreviations: BMI, body mass index; SBP, systolic blood pressure; DBP, diastolic blood pressure; TC, total cholesterol; non-HDL-C, Non-high-density lipoprotein-cholesterol; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; TG, triglycerides; IMT, intima-media thickness.

SI conversion factor: To convert glucose to mmol/L, multiply by 0.0555; to convert TC, non-HDL-C, LDL-C, and HDL-C to mmol/L, multiply by 0.0259; to convert TG to mmol/L, multiply by 0.0113.

One-way ANOVA and chi-square tests were performed for continuous variables and categorical variables, respectively.

eTable 6. Covariate-Adjusted Carotid IMT and P Values for Comparisons Between Lipid Trajectory Groups

Trajectory group	Mean IMT (SE)[a]	Trajectory groups			
		1	2	3	4
TC					
1. Low-Stable	0.887 (0.017)	Ref			
2. Low-Slow Increase	0.932 (0.012)	0.02	Ref		
3. Low-Rapid Increase	0.952 (0.021)	0.01	0.38	Ref	
4. Moderate-Stable	0.926 (0.021)	0.13	0.81	0.37	Ref
5. High-Stable	1.039 (0.045)	0.001	0.02	0.07	0.02
non-HDL-C					
1. Low-Stable	0.876 (0.016)	Ref			
2. Low-Slow Increase	0.924 (0.012)	0.009	Ref		
3. Low-Rapid Increase	0.972 (0.023)	<0.001	0.05	Ref	
4. Moderate-Stable	0.988 (0.021)	<0.001	0.006	0.61	Ref
5. High-Stable	1.107 (0.066)	<0.001	0.006	0.05	0.08
LDL-C					
1. Low-Stable	0.867 (0.016)	Ref			
2. Low-Slow Increase	0.935 (0.012)	<0.001	Ref		
3. Low-Rapid Increase	0.970 (0.019)	<0.001	0.10	Ref	
4. Moderate-Stable	0.959 (0.023)	<0.001	0.34	0.69	Ref
5. High-Stable	1.034 (0.060)	0.007	0.10	0.31	0.24
TG					
1. Low-Stable	0.885 (0.018)	Ref			
2. Low-Slow Increase	0.927 (0.013)	0.05	Ref		
3. Low-Rapid Increase	0.946 (0.020)	0.03	0.40	Ref	
4. Moderate-Stable	0.956 (0.020)	0.007	0.18	0.71	Ref
5. Moderate-Rapid increase	0.942 (0.034)	0.15	0.67	0.91	0.70
HDL-C					
1. High-Stable	0.886 (0.038)	Ref			
2. High-Rapid Decrease	0.889 (0.020)	0.17	Ref		
3. Moderate-Stable	0.918 (0.023)	0.46	0.55	Ref	
4. Moderate-Slow Decrease	0.933 (0.012)	0.07	0.05	0.35	Ref
5. Low-Stable	0.962 (0.019)	0.08	0.93	0.14	0.23

SE, standard error; TC, total cholesterol; non-HDL-C, non-high-density lipoprotein-cholesterol; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; TG, triglycerides; IMT, intima-media thickness

a, adjusted for age, race, sex, and body mass index, lipid-lowering medication, hypertension, diabetes, smoking, alcohol drinking, and lipid levels in the last adult survey.

eTable 7. Covariate-Adjusted Means of Adult Carotid IMT by Lipid Trajectory Group Adjusted for Clinical Risk Factors and Lipid Levels at Follow-up

Trajectory group	Mean IMT (SE)[a]	P
TC		
Low-Stable	0.916 (0.025)	Ref
Low-Slow Increase	0.974 (0.016)	0.04
Low-Rapid Increase	0.959 (0.030)	0.31
Moderate-Stable	0.962 (0.027)	0.20
High-Stable	1.086 (0.060)	0.01
non-HDL-C		
Low-Stable	0.901 (0.023)	Ref
Low-Slow Increase	0.964 (0.016)	0.02
Low-Rapid Increase	0.988 (0.033)	0.04
Moderate-Stable	1.042 (0.029)	<0.001
High-Stable	1.129 (0.089)	0.02
LDL-C		
Low-Stable	0.872 (0.018)	Ref
Low-Slow Increase	0.932 (0.012)	0.004
Low-Rapid Increase	0.966 (0.022)	0.002
Moderate-Stable	0.960 (0.024)	0.003
High-Stable	1.017 (0.063)	0.03
TG		
Low-Stable	0.882 (0.021)	Ref
Low-Slow Increase	0.926 (0.013)	0.05
Low-Rapid Increase	0.949 (0.022)	0.04
Moderate-Stable	0.957 (0.020)	0.01
Moderate-Rapid Increase	0.947 (0.037)	0.16
HDL-C		
Low-Stable	0.955 (0.020)	0.26
Moderate-Slow Decrease	0.930 (0.012)	0.49
Moderate-Stable	0.930 (0.026)	0.50
High-Rapid Decrease	0.892 (0.020)	0.86
High-Stable	0.900 (0.042)	Ref

SE, standard error; TC, total cholesterol; non-HDL-C, non-high-density lipoprotein-cholesterol; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; TG, triglycerides; IMT, intima-media thickness

a, adjusted for age, race, sex, and body mass index, lipid-lowering medication, hypertension, diabetes, smoking, alcohol drinking, and lipid levels in the last adult survey.

eTable 8. Covariate-Adjusted Means of Adult Carotid IMT by Lipid Trajectory Group After Excluding Participants With Lipid-Lowing Medications
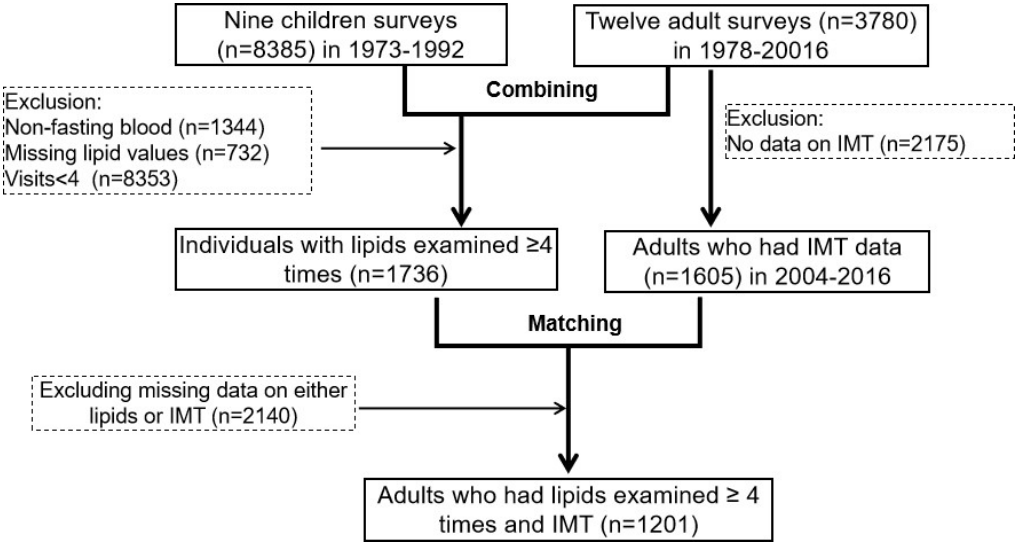
Trajectory group	Model 1			Model 2	
	Mean (SE)	P		Mean (SE)	P
TC					
Low-Stable	0.873 (0.016)	Ref		0.871 (0.019)	Ref
Low-Slow Increase	0.913 (0.012)	0.03		0.913 (0.012)	0.04
Low-Rapid Increase	0.943 (0.021)	0.007		0.944 (0.022)	0.02
Moderate-Stable	0.912 (0.022)	0.14		0.914 (0.025)	0.19
High-Stable	1.030 (0.050)	0.002		1.035 (0.055)	0.007
non-HDL-C					
Low-Stable	0.865 (0.015)	Ref		0.860 (0.017)	Ref
Low-Slow Increase	0.910 (0.012)	0.01		0.910 (0.012)	0.01
Low-Rapid Increase	0.957 (0.024)	0.001		0.960 (0.025)	0.001
Moderate-Stable	0.968 (0.022)	<0.001		0.977 (0.026)	<0.001
High-Stable	1.083 (0.077)	0.005		1.101 (0.082)	0.005
LDL-C					
Low-Stable	0.860 (0.015)	Ref		0.863 (0.017)	Ref
Low-Slow Increase	0.921 (0.012)	<0.001		0.921 (0.012)	0.004
Low-Rapid Increase	0.945 (0.020)	<0.001		0.943 (0.020)	0.004
Moderate-Stable	0.937 (0.025)	0.006		0.932 (0.029)	0.06
High-Stable	0.981 (0.070)	0.09		0.971 (0.074)	0.17
TG					
Low-Stable	0.872 (0.018)	Ref		0.876 (0.019)	Ref
Low-Slow Increase	0.915 (0.013)	0.04		0.916 (0.013)	0.06
Low-Rapid Increase	0.913 (0.020)	0.13		0.913 (0.020)	0.18
Moderate-Stable	0.933 (0.020)	0.02		0.928 (0.022)	0.08
Moderate-Rapid Increase	0.942 (0.037)	0.09		0.936 (0.038)	0.18
HDL-C					
Low-Stable	0.927 (0.019)	0.22		0.927 (0.022)	0.28
Moderate-Slow Decrease	0.920 (0.012)	0.26		0.920 (0.012)	0.28
Moderate-Stable	0.899 (0.023)	0.58		0.899 (0.023)	0.59
High-Rapid Decrease	0.875 (0.020)	0.98		0.874 (0.022)	0.98
High-Stable	0.876 (0.037)	Ref		0.875 (0.040)	Ref

SE, standard error; TC, total cholesterol; non-HDL-C, non-high-density lipoprotein-cholesterol; LDL-C, low-density lipoprotein cholesterol; HDL-C, high-density lipoprotein cholesterol; TG, triglycerides; IMT, intima-media thickness
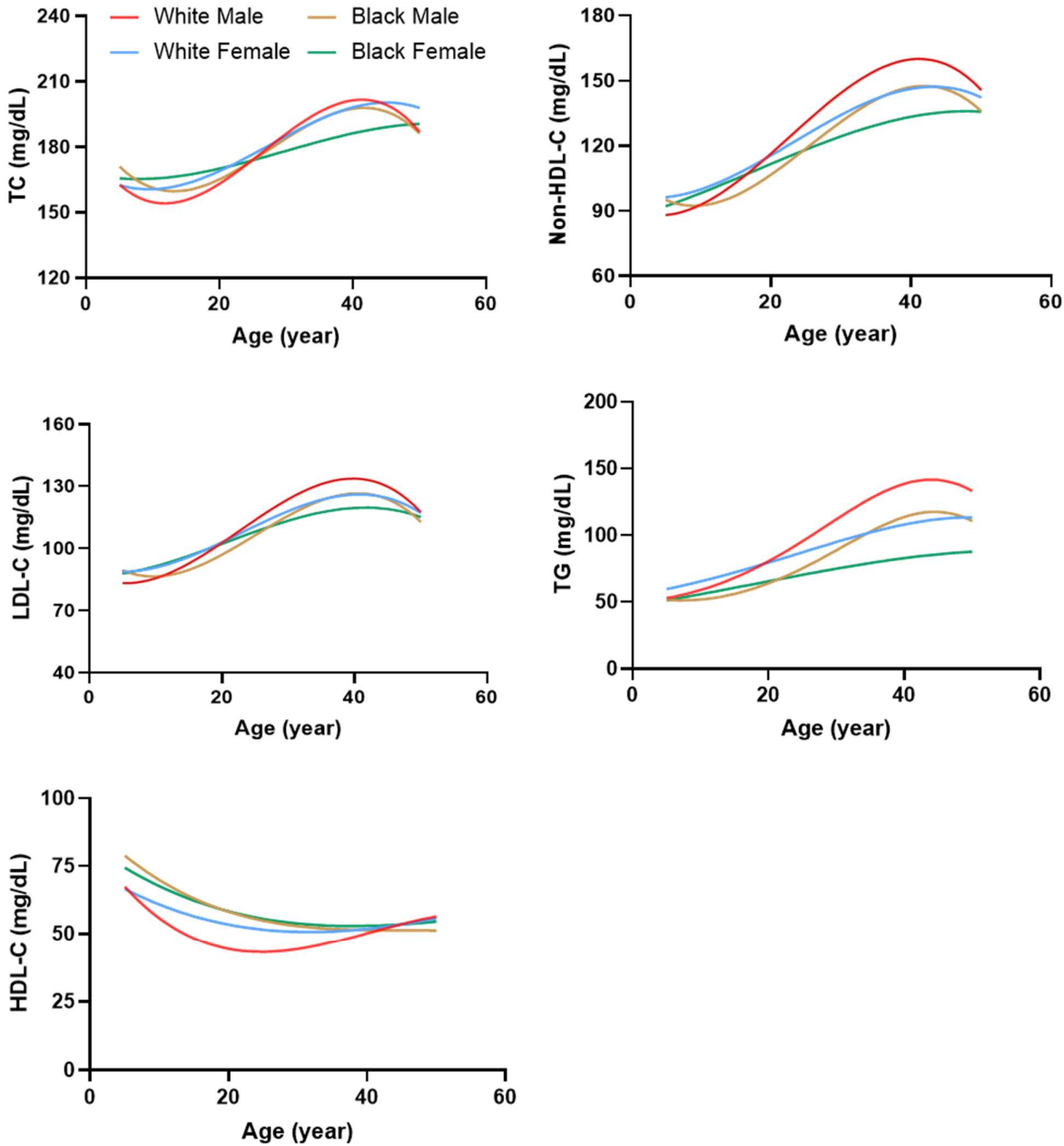
Model 1, adjusted for age, race, sex, and body mass index, lipid-lowering medication, hypertension, diabetes, smoking, alcohol drinking, and lipid levels in the last adult survey.

Model 2, Model 1 plus adjusted for lipid levels at baseline

eFigure 1. Flow Chart of the Study Cohort Selection

eFigure 2. Growth Curves of Lipids by Race and Sex

TC, total cholesterol; non-HDL-C, non-high-density lipoprotein-cholesterol; LDL-C, low-density lipoprotein cholesterol; TG, triglycerides; HDL-C, high-density lipoprotein cholesterol