

Supplementary Online Content

Allen NB, Krefman AE, Labarthe D, et al. Cardiovascular health trajectories from childhood through middle age and their association with subclinical atherosclerosis. *JAMA Cardiol.* Published online March 11, 2020. doi:10.1001/jamacardio.2020.0140

eMethods. Diet Scoring

eReferences

eTable 1. Demographics at Baseline and at Follow-up by Cohort

eTable 2. Cohort, Age, Sex, and Race Specific Cut Points for Defining High cIMT

eTable 3. Baseline Characteristics and Exam Counts by CVH Score Trajectory Group

eTable 4. Cross-tabulation of Trajectory Group Membership, for Those With a Full CVH Score Trajectory Group Assignment (N = 3736)

eTable 5. Association Between Carotid IMT (mm) and CVH Score Trajectory Group

eTable 6. The Association Between High Carotid IMT and CVH Score Trajectory Group

eTable 7. The Association Between High Carotid IMT and CVH Score Cohort-specific Trajectory Group, Stratified by Cohort

eTable 8. Baseline Characteristics and Exam Counts by Analytic Sample

eFigure. CVH Score Trajectories by Age

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

eMethods – Diet Scoring

BHS diet data were collected using 24-hour recalls. The adult questionnaire did not include intake of fish, so consistent with prior i3C publications, saturated fat was used as a surrogate—less than 7% of daily calorie intake coming from saturated fat was considered ideal.¹ Whole grain included the sum of oats, dark bread, and one-third each of pasta and cornbread. The data collected during childhood did include seafood and bread intake, but were not specific to what type of fish or grain, so were excluded when calculating an ideal health score. Ideal health was summed similarly to YFS described below.

YFS diet data were collected using a non-quantitative food frequency questionnaire (FFQ). Data from 2007 was scored according to the full AHA criteria presented in Table 1.² However, data prior to 2007 only included fish, fruit and vegetables, and sugar-sweetened beverages. Scoring for these years was altered to reflect that change—ideal health in two or three categories translated to an ideal diet score, one out of three categories was intermediate and none of the categories was considered poor.

CARDIA diet data was collected at years 0, 7, and 20 using the CARDIA dietary history. This dietary history was administered by an interviewer, and included a questionnaire about dietary practices as well as a FFQ.³ In this study, diet data were scored in the method described by Liu, et al (2012), using quintiles of calcium, potassium, fiber, and saturated fat. Quintile cut points from baseline were carried forward for scoring in exam years 7 and 20.⁴

HB collected annual diet data using an interviewer-administered FFQ. Children (accompanied by an adult) reported consumption of foods during the week prior to the interview. Relevant food items from the FFQ were scored as in Table 1.

STRIP collected 4-day food records of the child's diet every 6-12 months. Foods and nutrients were then calculated based on the Food and Nutrient Database of the Social Insurance Institution, Finland.⁵ The foods and nutrients were then used to determine whether the child's energy adjusted consumption met thresholds consistent with the ideal CVH metrics.⁶

eReferences

1. Oikonen M, Laitinen TT, Magnussen CG, et al. Ideal cardiovascular health in young adult populations from the United States, Finland, and Australia and its association with cIMT: the International Childhood Cardiovascular Cohort Consortium. *Journal of the American Heart Association*. 2013;2(3):e000244.
2. Laitinen TT, Pahkala K, Magnussen CG, et al. Ideal cardiovascular health in childhood and cardiometabolic outcomes in adulthood: the Cardiovascular Risk in Young Finns Study. *Circulation*. 2012;125(16):1971-1978.
3. McDonald A, Van Horn L, Slattery M, et al. The CARDIA dietary history: development, implementation, and evaluation. *J Am Diet Assoc*. 1991;91(9):1104-1112.
4. Liu K, Daviglus ML, Loria CM, et al. Healthy lifestyle through young adulthood and the presence of low cardiovascular disease risk profile in middle age: the Coronary Artery Risk Development in (Young) Adults (CARDIA) study. *Circulation*. 2012;125(8):996-1004.
5. Simell O, Niinikoski H, Rönnemaa T, et al. Cohort Profile: The STRIP Study (Special Turku Coronary Risk Factor Intervention Project), an Infancy-onset Dietary and Life-style Intervention Trial. *International Journal of Epidemiology*. 2009;38(3):650-655.
6. Pahkala K, Hietalampi H, Laitinen TT, et al. Ideal cardiovascular health in adolescence: effect of lifestyle intervention and association with vascular intima-media thickness and elasticity (the Special Turku Coronary Risk Factor Intervention Project for Children [STRIP] study). *Circulation*. 2013;127(21):2088-2096.

eTable 1. Demographics at baseline and at follow-up by cohort.

	Bogalusa	Young Finns	HeartBeat!	CARDIA	STRIP
N (total sample size)	10,451	3,596	678	5,115	490
Baseline Characteristics					
Female, %	48.75	50.95	49.12	54.5	48.57
Race, %					
White	64.22	100	74.63	48.45	100
Black	35.78	-	20.06	51.55	-
Other	-	-	5.31	-	-
Age					
Youngest age	8	9	8.1	17	15
Average age at baseline	11.9	11.9	10.8	24.8	15.41
Average age at end of follow-up	19	41.4	16.8	50.2	17.96
Oldest Age at follow-up	62.3	49	18	59	19
Avg. Number of Exams					
Total	3.04	7.52	8.58	8	2.19
During Childhood (<20 yrs) ^a	2.21	2.88	8.58	0.1	2.19
Adult (≥ 20 yrs)	2.57	4.64	-	7.9	-

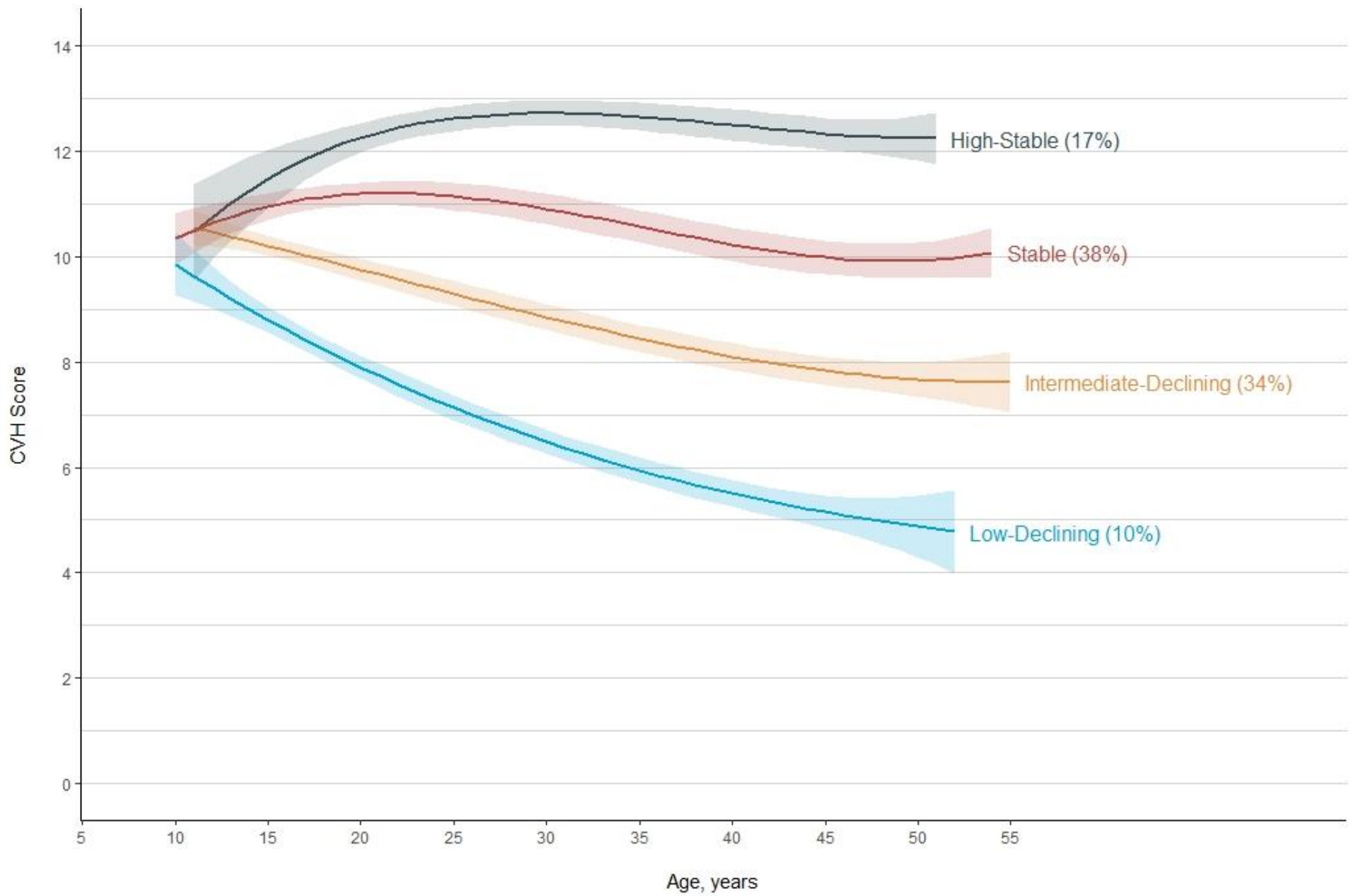
^aChildhood is defined as <20 years based on the AHA definition of CVH metrics.

eTable 2. Cohort, age, sex, and race specific cut points for defining high cIMT.

Age	Young Finns		CARDIA				Bogalusa			
	White		White		Black		White		Black	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
23	-	-	-	-	-	-	0.80	-	-	0.64
24	0.65	0.62	-	-	-	-	-	0.75	-	0.92
25	-	-	-	-	-	-	0.95	0.85	-	0.89
26	-	-	-	-	-	-	0.81	1.44	1.07	0.98
27	0.65	0.65	-	-	-	-	0.98	0.83	0.93	1.17
28	-	-	-	-	-	-	1.02	1.10	1.10	1.02
29	-	-	-	-	-	-	1.63	1.00	1.08	1.01
30	0.71	0.66	-	-	-	-	1.05	0.95	1.05	0.99
31	-	-	-	-	-	-	0.84	1.01	0.88	0.79
32	-	-	-	-	-	-	0.91	0.96	0.96	1.08
33	0.71	0.67	-	-	-	-	1.06	0.93	1.28	0.92
34	-	-	-	-	-	-	1.04	1.05	1.44	1.04
35	-	-	-	-	-	-	1.13	1.03	0.97	0.94
36	0.75	0.71	-	-	-	-	1.05	0.96	0.96	1.07
37	-	-	0.83	0.51	0.82	0.67	1.04	1.02	1.29	1.02
38	-	-	0.80	0.74	0.83	0.77	1.12	1.00	1.03	1.08
39	0.80	0.74	0.77	0.69	0.78	0.77	1.05	1.06	1.04	0.94
40	-	-	0.83	0.69	0.82	0.78	0.96	1.11	1.13	1.12
41	-	-	0.80	0.67	0.89	0.81	0.99	1.12	0.96	1.04
42	0.83	0.74	0.82	0.77	0.98	0.86	0.96	0.92	1.16	0.95
43	-	-	0.88	0.76	0.93	0.82	0.84	0.93	1.14	1.02
44	-	-	0.85	0.79	0.94	0.85	1.04	0.96	1.00	1.07
45	0.87	0.78	0.87	0.84	0.97	0.89	0.83	1.03	0.94	0.66
46	-	-	0.93	0.81	0.92	0.91	0.99	0.84	0.79	0.83
47	-	-	0.99	0.80	0.98	0.83	0.92	0.76	0.85	0.83
48	-	-	0.95	0.83	0.95	0.85	0.76	0.81	0.64	0.85
49	-	-	0.99	0.81	0.96	0.97	0.87	0.87	0.85	1.00
50	-	-	1.05	0.94	1.03	0.98	0.70	0.91	-	0.74
51	-	-	1.43	0.79	1.02	0.87	-	0.51	-	0.63
52	-	-	0.87	-	0.85	0.91	-	-	-	-
53	-	-	-	-	-	-	-	-	-	-
54	-	-	-	-	0.77	-	-	-	-	-
55	-	-	-	-	-	1.19	-	-	-	-

Abbreviations: cIMT, carotid intima-media thickness

eFigure 1. CVH Score Trajectories by Age



^a Shaded bars represent 95% confidence intervals

eTable 3. Baseline characteristics and exam counts by CVH score trajectory group.^a

	High - Stable	Stable	Intermediate-Declining	Low - Declining	Overall	p-value
N (total sample size)	656	1445	1287	375	3763	<0.001
%	17.4	38.4	34.2	10	100	
Baseline Characteristics^b						
Female, N (%)	386 (58.84)	828 (57.30)	707 (54.93)	159 (42.40)	2080 (55.28)	<0.001
Race, N (%)						
White	531 (80.95)	931 (64.43)	870 (67.60)	299 (79.73)	2631 (69.92)	<0.001
Black	125 (19.05)	511 (35.36)	416 (32.32)	76 (20.27)	1128 (29.98)	
Other	0 (0.00)	3 (0.21)	1 (0.08)	0 (0.00)	4 (0.11)	
Age, Mean (SD)	25.00 (3.74)	22.71 (6.01)	19.00 (7.16)	16.06 (6.50)	21.17 (6.76)	<0.001
Age group, N (%)						
8-11 years	3 (0.46)	110 (7.61)	242 (18.80)	99 (26.40)	454 (12.06)	<0.001
12-19 years	69 (10.52)	268 (18.55)	446 (34.65)	186 (49.60)	969 (25.75)	
≥ 20 years	584 (89.02)	1067 (73.84)	599 (46.54)	90 (24.00)	2340 (62.18)	
Cohort, N (%)						
Young Finns	4 (0.61)	214 (14.81)	529 (41.10)	215 (57.33)	962 (25.56)	<0.001
Project HeartBeat!	0 (0.00)	20 (1.38)	16 (1.24)	4 (1.07)	40 (1.06)	
CARDIA	648 (98.78)	1167 (80.76)	639 (49.65)	102 (27.20)	2556 (67.92)	
STRIP	4 (0.61)	44 (3.04)	103 (8.00)	54 (14.40)	205 (5.45)	
Clinical measures, Mean (SD)						
BMI, kg/m ²	21.69 (2.16)	22.59 (4.04)	22.62 (6.08)	22.81 (6.69)	22.47 (4.93)	<0.001
BMI %, by age and sex ^c	38.27 (20.87)	42.73 (25.93)	44.65 (25.92)	56.21 (29.69)	46.12 (26.98)	<0.001
Systolic BP, mmHg	107.05 (9.26)	110.27 (10.48)	113.18 (11.54)	117.53 (12.23)	111.42 (11.23)	<0.001
SBP percentile ^c	24.71 (20.46)	38.58 (24.61)	53.10 (30.22)	66.11 (29.63)	45.72 (29.77)	<0.001
Diastolic BP, mmHg	67.54 (8.16)	67.61 (9.23)	68.27 (10.22)	69.38 (10.45)	68 (9.55)	0.006
DBP percentile ^c	40.34 (25.06)	42.14 (23.91)	38.94 (22.88)	41.56 (25.90)	40.68 (24.01)	0.671
Total Cholesterol, mg/dL	164.91 (25.30)	177.68 (32.40)	190.72 (37.27)	202.21 (39.91)	182.34 (35.67)	<0.001
Fasting glucose, mg/dL	80.94 (6.96)	81.66 (9.18)	84.09 (14.93)	88.89 (21.91)	82.58 (11.85)	<0.001
Ideal behavior scores, N (%)^d						

Smoking	600 (91.46)	1072 (74.19)	796 (61.85)	183 (48.80)	2651 (70.45)	<0.001
Diet	472 (71.95)	569 (39.38)	310 (24.09)	54 (14.40)	1405 (37.34)	<0.001
Physical Activity	384 (58.54)	529 (36.61)	240 (18.65)	32 (8.53)	1185 (31.49)	<0.001

	High - Stable	Stable	Intermediate-Declining	Low - Declining	Overall	p-value
N (total sample size)	656	1445	1287	375	3763	<0.001
%	17.4	38.4	34.2	10	100	
Baseline Characteristics^b, continued						
Maternal education, N (%)^e						
Less than 6 years	5 (0.77)	45 (3.28)	78 (6.76)	22 (6.94)	150 (4.25)	<0.001
6-9 years	15 (2.31)	149 (10.85)	289 (25.04)	133 (41.96)	586 (16.59)	
9-12 years	236 (36.36)	651 (47.41)	467 (40.47)	111 (35.02)	1477 (41.81)	
12-16 years	285 (43.91)	412 (30.01)	203 (17.59)	27 (8.52)	948 (26.83)	
>16 years (grad school)	108 (16.64)	116 (8.45)	117 (10.14)	24 (7.57)	372 (10.53)	
Paternal education, N (%)^e						
Less than 6 years	14 (2.15)	68 (4.99)	86 (7.53)	16 (5.08)	184 (5.25)	<0.001
6-9 years	27 (4.15)	189 (13.86)	363 (31.79)	134 (42.54)	714 (20.36)	
9-12 years	178 (27.38)	607 (44.50)	425 (37.22)	115 (36.51)	1329 (37.9)	
12-16 years	257 (39.54)	340 (24.93)	199 (17.43)	36 (11.43)	849 (24.21)	
>16 years (grad school)	174 (26.77)	160 (11.73)	69 (6.04)	14 (4.44)	431 (12.29)	
Number of Exams with Clinical CV Scores						
Total, Mean (SD)	3.00 (0.00)	3.02 (0.15)	3.06 (0.23)	3.08 (0.27)	3.04 (0.18)	<0.001
N with cIMT measurements						
Analytic sample, N (%)	615 (93.75)	1280 (88.58)	1096 (85.16)	311 (82.93)	3302 (87.75)	<0.001

**eTable 3 (continued).
Baseline characteristics and exam counts by CVH score trajectory group.^a**

Abbreviations: CVH, Cardiovascular health; cIMT, carotid intima-media thickness; BMI, body mass index; BP, blood pressure; SBP, systolic blood pressure; DBP, diastolic blood pressure
SI conversion factors: To convert total cholesterol and fasting glucose to mmol/L, multiply values by 0.0259.

^a 4-group, cubic order trajectory model.

^b Baseline age group and clinical measures are taken from a participant's first exam, even if that exam has a missing CVH score.

^c BMI, SBP, and DBP percentiles only available for those who were <20 years old at baseline. N=1414 for BMI, N=461 for BP.

^d Ideal behavior scores translate to: Smoking: never tried, never smoker, or quit >12 months ago in those >20 years old. Physical activity: ≥60 minutes of moderate or vigorous activity daily for those under 20 years old; ≥150 minutes of moderate or ≥75 minutes of vigorous exercise per week for those ≥20 years old. Diet: 4-5 components of healthy diet.

^e Maternal and paternal education data was not available for all individuals. Father, N=3507 (93%); Mother, N=3533 (94%)

eTable 4. Cross-tabulation of trajectory group membership, for those with a full CVH score trajectory group assignment (N=3763).

	Full CVH score Trajectory Group			
Clinical CVH Score Trajectory Group	High-Stable	Stable	Intermediate-Declining	Low-Declining
High-Late Decline	394 (57.6)	242 (35.4)	48 (7.0)	0 (0)
High-Moderate Decline	178 (18.8)	497 (52.4)	262 (27.6)	12 (1.2)
High-Early Decline	10 (0.9)	398 (33.5)	609 (51.3)	170 (14.3)
Intermediate-Late Decline	74 (11.5)	299 (46.6)	244 (38.0)	25 (3.9)
Intermediate-Early decline	0 (0)	9 (3.0)	124 (41.2)	168 (55.8)

Abbreviations: CVH, cardiovascular health

Numbers presented as N(row %).

Spearman correlation coefficient between clinical CVH trajectory group and full CVH score trajectory group = 0.233.

eTable 5. Association between carotid IMT (mm) and CVH score trajectory group.

	Adjusted ^b		Adjusted + Baseline score ^c		Adjusted + Proximal score ^d	
	Point estimate (95% CI)	p-value	Point estimate (95% CI)	p-value	Point estimate (95% CI)	p-value
CVH Score Trajectory Group^a						
High-Stable	0.631 (0.617 - 0.646)	-	0.717 (0.664 - 0.77)	-	0.744 (0.699 - 0.79)	-
Stable	0.676 (0.648 - 0.705)	<0.001	0.757 (0.689 - 0.824)	<0.001	0.77 (0.709 - 0.831)	0.002
Intermediate-Declining	0.704 (0.673 - 0.736)	<0.001	0.778 (0.705 - 0.851)	<0.001	0.781 (0.711 - 0.851)	0.004
Low-Declining	0.73 (0.695 - 0.766)	<0.001	0.796 (0.717 - 0.875)	<0.001	0.786 (0.708 - 0.864)	0.013

Abbreviations: IMT, intima-media thickness; cIMT, carotid intima-media thickness; CVH, Cardiovascular health; CI, confidence interval

^a Full CVH score: Sum of BP, BMI, Cholesterol, Blood sugar, diet, physical activity, and smoking scores. Highest possible score=14. Trajectory groups based on 4-group, cubic order model. Trajectory group was assigned to those with full CVH scores at ≥3 distinct age (year) integers.

^b Adjusted for age, gender, race, cohort, maternal and paternal education, and baseline smoking, physical activity, and diet scores.

^c Adjusted for age, gender, race, cohort, maternal and paternal education, and baseline smoking, physical activity, and diet scores and baseline CVH score. Baseline CVH score is the earliest recorded CVH score per participant.

^d Adjusted for age, gender, race, cohort, maternal and paternal education, and baseline smoking, physical activity, and diet scores, and proximal CVH score. Proximal CVH score is the clinical CVH score from the exam at or before the cIMT measurement. 99.5% of scores come from the same exam as the cIMT measurement, while 0.5% come from one exam prior.

eTable 6. The association between high carotid IMT^a and CVH score trajectory group.

	Adjusted model ^b		Adjusted + Baseline score ^b		Adjusted + Proximal score ^b	
	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value
CVH Score Trajectory Group ^c						
High-Stable	1.00 (ref.)		1.00 (ref.)		1.00 (ref.)	
Stable	2.14 (1.31 - 3.48)	0.002	1.98 (1.20 - 3.26)	0.007	1.66 (0.98 - 2.83)	0.060
Intermediate-Declining	3.62 (2.16 - 6.07)	<0.001	3.06 (1.73 - 5.40)	<0.001	2.25 (1.15 - 4.42)	0.018
Low-Declining	4.97 (2.70 - 9.16)	<0.001	3.75 (1.83 - 7.67)	<0.001	2.38 (0.98 - 5.78)	0.057

Abbreviations: IMT, intima-media thickness; cIMT, carotid intima-media thickness; CVH, Cardiovascular health

^a See eTable 2 for cohort, race, sex, and age-specific 90th percentile cIMT cut points. High cIMT is defined as a cIMT value at or above the given cut point.

^b Adjusted models include trajectory group, age (centered), cohort, race, gender, maternal and paternal education, baseline diet, physical activity and smoking scores, and either baseline CVH score (the earliest recorded clinical CVH score per participant) or proximal CVH score (The CVH score from the exam at or before the cIMT measurement. 99.5% of scores come from the same exam as the cIMT measurement, while 0.5% come from one exam prior.).

^c Full CVH score: Sum of BP, BMI, Cholesterol, Blood sugar, diet, physical activity, and smoking scores. Highest possible score=14. Trajectory groups based on 4-group, cubic order model. Trajectory group was assigned to those with full CVH scores at ≥ 3 distinct age (year) integers.

eTable 7. The association between high carotid IMT^a and CVH score^b cohort-specific trajectory group, stratified by cohort.

	N(%) High cIMT	Adjusted model ^c	Adjusted + Baseline score ^c	Adjusted + Proximal score ^c
		OR (95% CI)	OR (95% CI)	OR (95% CI)
CARDIA, N=2341	244 (10.4)			
High-Stable	13 (4.3)	1.00 (Ref.)	1.00 (Ref.)	1.00 (Ref.)
Stable	81 (7.8)	1.87 (1.01 - 3.47)	1.62 (0.86 - 3.03)	1.29 (0.66 - 2.49)
Intermediate-Declining	123 (14.5)	3.74 (1.96 - 7.14)	2.64 (1.31 - 5.32)	1.68 (0.74 - 3.83)
Low-Declining	27 (16.9)	4.41 (1.98 - 9.81)	2.31 (0.89 - 5.94)	1.23 (0.39 - 3.84)
Young Finns, N=961	105 (10.9)			
High-Rapid Decline	16 (11.3)	1.00 (Ref.)	1.00 (Ref.)	1.00 (Ref.)
Stable	15 (6.0)	0.48 (0.22 - 1.04)	0.48 (0.22 - 1.03)	0.41 (0.16 - 1.05)
Intermediate-Declining	40 (10.2)	0.86 (0.46 - 1.61)	0.9 (0.46 - 1.74)	0.8 (0.40 - 1.58)
Low-Declining	34 (19.7)	1.92 (0.99 - 3.74)	2.11 (0.98 - 4.54)	2.05 (1.01 - 4.15)

Abbreviations: IMT, intima-media thickness; CVH, cardiovascular health; CI, confidence interval; cIMT, carotid intima-media thickness

^aSee eTable 2 for cohort, race, sex, and age-specific 90th percentile cIMT cut points. High cIMT is defined as a cIMT value at or above the given cut point.

^bFull CVH score: Sum of BP, BMI, Cholesterol, Blood sugar, diet, physical activity, and smoking scores. Highest possible score=14. Trajectory groups based on 4-group, cubic order model. Trajectory group was assigned to those with full CVH scores at ≥3 distinct age (year) integers. Separate trajectory models were built for each cohort.

^cAdjusted models include trajectory group, age (centered by cohort-specific mean), race (CARDIA only), gender, maternal and paternal education, baseline diet, physical activity and smoking scores, and either baseline CVH score (the earliest recorded clinical CVH score per participant) or proximal CVH score (The CVH score from the exam at or before the cIMT measurement. 95% of scores come from the same exam as the cIMT measurement).

eTable 8. Baseline characteristics and exam counts by analytic sample.

	Total sample	3+ Clinical CVH scores	3+ Clinical CVH scores + cIMT
N (total sample size)	20,330	9388	6287
Baseline Characteristics			
Female, N (%)	10285 (50.59)	5146 (54.81)	3571 (56.80)
Race, N (%)			
White	13780 (67.78)	6228 (66.34)	4483 (71.31)
Black	6514 (32.04)	3149 (33.54)	1804 (28.69)
Other	36 (0.18)	11 (0.12)	0 (0.00)
Age, Mean (SD)	15.07 (6.96)	17.45 (7.53)	18.52 (7.52)
Age group, N (%)			
8-11 years	9366 (46.07)	3259 (34.71)	1721 (27.37)
12-19 years	6143 (30.22)	2327 (24.79)	1646 (26.18)
≥ 20 years	4821 (23.71)	3802 (40.5)	2920 (46.45)
Cohort, N (%)			
Young Finns	3596 (17.69)	1962 (20.9)	1955 (31.10)
Project HeartBeat!	678 (3.33)	114 (1.21)	0 (0.00)
CARDIA	5115 (25.16)	4200 (44.74)	3198 (50.87)
Bogalusa	10451 (51.41)	2907 (30.97)	1134 (18.04)
STRIP	490 (2.41)	205 (2.18)	0 (0.00)
Clinical measures, Mean (SD)			
BMI, kg/m ²	20.30 (4.94)	21.05 (5.22)	21.43 (5.16)
BMI %, by age and sex ^a	51.60 (29.75)	48.43 (29.15)	47.30 (28.69)
Systolic BP, mmHg	106.29 (11.91)	107.85 (12.01)	109.40 (11.52)
SBP percentile ^a	41.95 (25.02)	41.72 (25.65)	40.00 (24.84)
Diastolic BP, mmHg	57.36 (14.85)	61.14 (14.45)	64.25 (13.03)
DBP percentile ^a	22.31 (21.43)	22.59 (22.17)	24.42 (23.61)
Total Cholesterol, mg/dL	174.46 (34.14)	177.43 (34.58)	182.58 (35.34)
Fasting glucose, mg/dL	84.39 (13.67)	82.71 (12.06)	83.85 (12.32)
Ideal behavior scores, N (%)^b			
Smoking	12992 (71.03)	6873 (73.21)	4578 (72.82)
Diet	3059 (28.42)	2341 (29.66)	1949 (31.00)
Physical Activity	3120 (27.65)	2333 (29.7)	1729 (27.50)
Maternal education, N (%)^c			
Less than 6 years	566 (4.13)	330 (4.4)	304 (4.84)
6-9 years	2240 (16.36)	1199 (15.98)	1124 (17.88)
9-12 years	5786 (42.26)	3321 (44.27)	2656 (42.25)
12-16 years	4000 (29.22)	1969 (26.25)	1596 (25.39)
>16 years (grad school)	1099 (8.03)	682 (9.09)	607 (9.65)
Paternal education, N (%)^c			
Less than 6 years	625 (5.10)	425 (5.84)	368 (5.85)
6-9 years	2461 (20.09)	1402 (19.27)	1310 (20.84)
9-12 years	4893 (39.94)	3007 (41.32)	2570 (40.88)
12-16 years	3238 (26.43)	1709 (23.48)	1420 (22.59)
>16 years (grad school)	1034 (8.44)	734 (10.09)	619 (9.85)
Number of exams with CVH scores, Mean (SD)			
Clinical CVH Score	2.79 (2.08)	4.68 (1.43)	5.00 (1.32)
Full CVH Score	0.94 (1.22)	1.73 (1.29)	2.14 (1.16)

Abbreviations: CVH: Cardiovascular health; cIMT: carotid intima-media thickness; BMI: body mass index; BP: blood pressure; SBP: systolic blood pressure; DBP: diastolic blood pressure

SI conversion factors: To convert total cholesterol and fasting glucose to mmol/L, multiply values by 0.0259.

^a BMI, SBP, and DBP percentiles only available for those who were <20 years old at baseline.

^b Behavior scores were not captured at baseline for every participant—these scores represent their first available score for that behavior. Smoking scores available for N=18,292 (90%); Diet, N=11,360 (56%); Physical activity, N=11,285 (56%). Ideal behavior scores translate to: Smoking: never tried,

never smoker, or quit >12 months ago in those >20 years old. Physical activity: ≥ 60 minutes of moderate or vigorous activity daily for those under 20 years old; ≥ 150 minutes of moderate or ≥ 75 minutes of vigorous exercise per week for those ≥ 20 years old. Diet: 4-5 components of healthy diet.
° Maternal and paternal education data was not available for all individuals. Father, N=12,251 (60%); Mother, N=13,691 (67%).