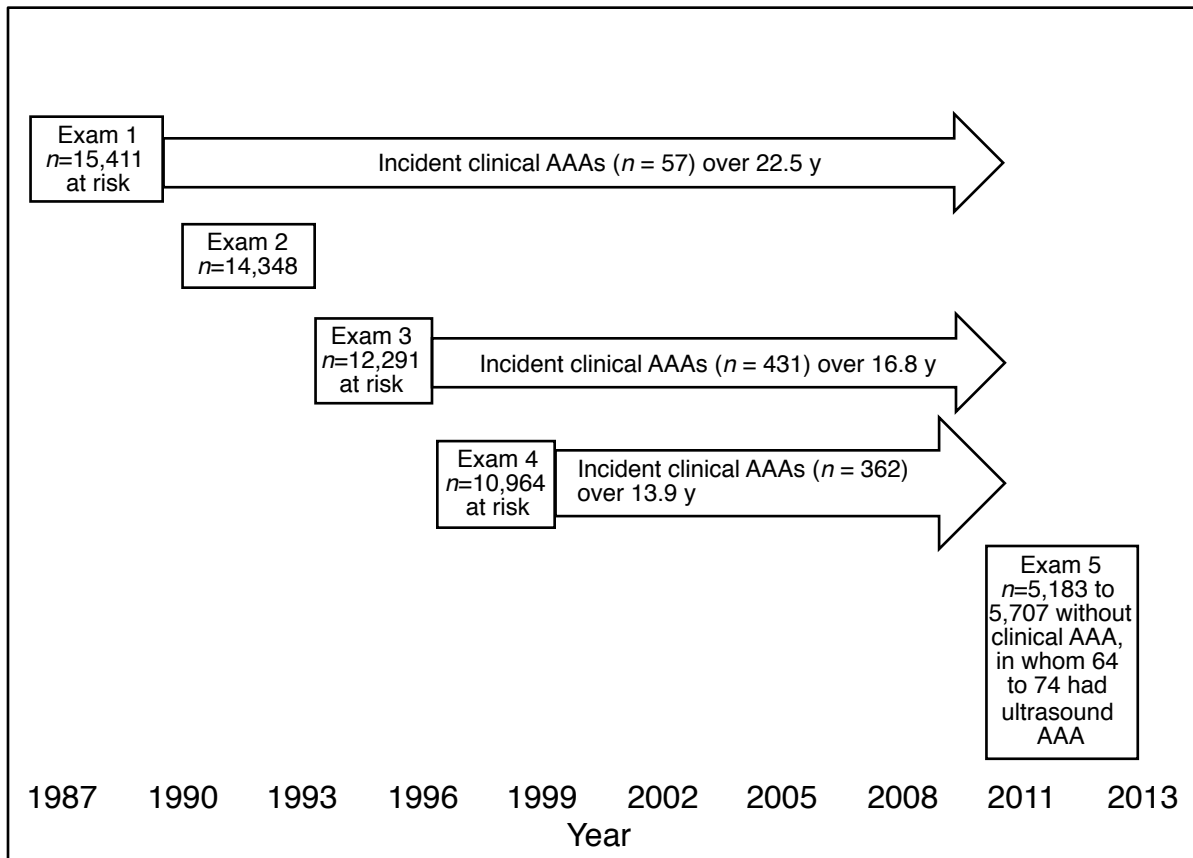


SUPPLEMENTAL MATERIAL

Supplemental Figure Legend

Aortic Aneurysm (AAA) Study Design, ARIC



Supplemental Table 1. Unadjusted Participant Characteristics and Biomarker Levels at ARIC Visits, Overall and by Follow-up AAA Status

Characteristic	Overall	Developed AAA	
		Yes	No
<u>Baseline characteristics*</u>			
Mean age, year	54.2	56.7	54.0
Male, %	44.8	71.6	43.8
White, %	73.7	86.0	73.3
Mean height, cm	168.5	172.5	168.3
Mean weight, kg	78.8	81.0	78.7
Smoking status			
Current, %	26.1	50.6	25.2
Former, %	32.2	37.1	32.0
Never, %	41.6	12.1	42.8
Diabetes, %	11.7	7.2	11.9
Mean systolic blood pressure, mmHg	121.3	124.2	121.1
Hypertensive medication use, %	25.2	30.5	25.0
Mean total cholesterol, mg/dL	214.6	222.3	214.3
Mean HDL, mg/dL	51.6	44.2	51.9
Lipid-lowering medication use, %	2.9	4.3	2.8
<u>Baseline biomarkers (medians)*</u>			
White blood cell count, 1000 cells/mm ³	5.8	6.6	5.8§
Fibrinogen, mg/dL	295	316	294§
Factor VII, %	116	116	116
Factor VIII, %	126	127	126
von Willebrand factor, %	110	113	109
Protein C, μ g/mL	3.1	3.0	3.1§
Antithrombin III, %	109	109	109
aPTT, sec	28.8	29.1	28.8§
<u>Visit 3 biomarkers (medians)†</u>			
D-dimer, μ g/mL	0.27	0.38	0.27§
<u>Visit 4 biomarkers (medians)‡</u>			
Troponin T, ng/L	5	7	3§
NT-proBNP, pg/mL	67.2	95.1	66.6§
C-reactive protein, mg/L	2.44	2.88	2.42§

* At baseline, overall N = 15,411 and 587 developed AAA over median of 22.5 years follow-up. Statistical testing was performed only for biomarkers and not other baseline characteristics.

† At Visit 3, overall N = 12,271 and 431 developed AAA over median of 16.8 years follow-up.

‡ At visit 4, overall N = 10,964 and 362 developed AAA over median of 13.9 years of follow-up.

§ p<0.01 for difference in biomarker medians by Wilcoxon test between those who did or did not develop AAA.

Supplemental Table 2. Incidence Rates (95% CIs) and Adjusted Hazard Ratios (HRs) (95% CIs) of Abdominal Aortic Aneurysm From 1987-89 Through 2011 in Relation to Quartiles of Hemostatic Factors in 1987-89, ARIC

Biomarker		Quartile 1	Quartile 2	Quartile 3	Quartile 4	P for linear trend
Factor VIII (%)	Quartile Range	≤ 105	106 - 126	127 - 150	≥ 151	
	N at risk	3924	3788	3744	3883	
	No. events	148	142	160	134	
	Incidence rate*†	1.82 (1.55, 2.13)	1.85 (1.57, 2.18)	2.16 (1.85, 2.52)	1.87 (1.58, 2.21)	
	Model 1 HR†	1	0.98 (0.78, 1.23)	1.19 (0.95, 1.49)	1.13 (0.89, 1.43)	0.34
	Model 2 HR‡	1	0.98 (0.78, 1.24)	1.20 (0.95, 1.51)	1.11 (0.87, 1.42)	0.40
von Willebrand factor (%)	Quartile Range	≤ 83	84 - 109	110 - 142	≥ 143	
	N at risk	3804	3859	3838	3846	
	No. events	131	139	167	148	
	Incidence rate*†	1.65 (1.39, 1.96)	1.78 (1.51, 2.11)	2.20 (1.89, 2.56)	2.08 (1.77, 2.45)	
	Model 1 HR†	1	0.98 (0.77, 1.24)	1.17 (0.93, 1.47)	1.14 (0.90, 1.45)	0.28
	Model 2 HR‡	1	1.02 (0.80, 1.30)	1.21 (0.96, 1.53)	1.14 (0.89, 1.46)	0.29
Factor VII (%)	Quartile Range	≤ 99	100 - 115	116 - 135	≥ 136	
	N at risk	3768	3654	3893	3727	
	No. events	153	130	154	132	
	Incidence rate*†	2.07 (1.77, 2.42)	1.78 (1.50, 2.11)	1.98 (1.69, 2.32)	1.80 (1.52, 2.14)	
	Model 1 HR†	1	0.91 (0.72, 1.15)	1.09 (0.87, 1.37)	1.15 (0.90, 1.46)	0.26
	Model 2 HR‡	1	0.88 (0.69, 1.12)	0.99 (0.79, 1.26)	0.98 (0.76, 1.27)	0.89
Protein C (µg/mL)	Quartile Range	≤ 2.7	2.8 - 3.1	3.2 - 3.5	≥ 3.6	
	N at risk	3853	4206	3526	3760	
	No. events	171	164	125	124	
	Incidence rate*†	2.28 (1.96, 2.65)	1.97 (1.69, 2.29)	1.77 (1.49, 2.11)	1.65 (1.38, 1.97)	
	Model 1 HR†	1	0.90 (0.73, 1.12)	0.85 (0.67, 1.07)	0.89 (0.70, 1.12)	0.32
	Model 2 HR‡	1	0.87 (0.70, 1.09)	0.73 (0.57, 0.94)	0.75 (0.58, 0.97)	0.03
Antithrombin III (%)	Quartile Range	≤ 96	97 - 109	110 - 123	≥ 124	
	N at risk	3846	3852	3763	3881	
	No. events	149	149	129	158	
	Incidence rate*†	1.93 (1.65, 2.27)	1.94 (1.65, 2.28)	1.71 (1.44, 2.03)	2.12 (1.81, 2.47)	
	Model 1 HR†	1	1.10 (0.87, 1.38)	1.01 (0.80, 1.28)	1.44 (1.15, 1.80)	0.002
	Model 2 HR‡	1	1.03 (0.81, 1.29)	0.98 (0.77, 1.24)	1.29 (1.03, 1.63)	0.03

aPTT (sec)	Quartile Range	≤ 27.0	27.1 - 28.7	28.8 - 30.7	≥ 30.8	
	N at risk	3804	3785	3877	3869	
	No. events	112	155	149	168	
	Incidence rate*†	1.51 (1.26, 1.82)	2.06 (1.76, 2.41)	1.92 (1.64, 2.25)	2.18 (1.87, 2.54)	
	Model 1 HR†	1	1.32 (1.04, 1.69)	1.22 (0.95, 1.56)	1.34 (1.06, 1.71)	0.02
	Model 2 HR‡	1	1.34(1.04, 1.72)	1.23 (0.95, 1.58)	1.24 (0.97, 1.59)	0.09

* Incidence rate per 1000 person-years.

† Adjusted for age, sex, and race.

‡ Adjusted for age, sex, race-center, height, weight, smoking pack years, diabetes, systolic blood pressure, blood pressure medications, total cholesterol, high-density lipoprotein cholesterol, and lipid medications.

Due to missing data, counts of participants and AAA events shown are somewhat less than the maximum of 587 AAA events among 15,411 at risk, and are for Model 1. These vary slightly among biomarkers and were approximately 4% fewer in Model 2.